PHILADELPHIA, JANUARY 9, 1886.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON CHRONIC INTERSTITIAL NEPHRITIS.

Delivered at the Philadelphia Hospital

BY JAMES TYSON, M.D.,

Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, one of the Physicians to the Hospital, etc.

Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN, — The patient whom you see was admitted to the hospital three months ago. He is 39 years of age, a house-painter by occupation, and during the past fifteen years has had three attacks of lead-colic, the last occurring about two years ago. He has also had other manifestations of lead-poisoning. Four months ago he had a sharp attack of pain in the lumbar region, with vomiting and cramps. The severe symptoms lasted about a week, and then disappeared, leaving some lumbar pain. On admission he had diarrhœa, which was soon checked. Examination of the urine at this time showed that the specific gravity was 1014, and that it contained albumen and small granular and hyaline tube-casts. It was also learned that he had to get up at night six or eight times to pass water. The urine was sometimes pale and at times cloudy. There was slight swelling of the feet. Under the use of iodide of potassium improvement followed.

The fact that a person has had lead-poisoning should always suggest an examination of the urine, for lead-poisoning is one of the recognized causes of contracted kidney. There was in this case a little swelling of the feet, which also directed our attention to the kidneys. You will, however, notice the absence of all other symptoms pointing to renal disease. It is true that he complained of pain, but it will be noted that this pain was of a peculiar kind,—a kind which, when affecting the localities referred to, is almost invariably dependent on lead-poisoning. He had lumbar as well as abdominal pain, with vomiting, lasting about a week, and followed by diarrhœa. Again let me repeat what I have said on other occasions, that chronic Bright's disease of any form is rarely attended with pain, and that pain is not often a symptom of acute Bright's disease. This is contrary to the popular notion, but still it is the fact. More than three-fourths of the cases of "pain in the back" are nothing but lumbago.

Here is the urine. It is pale in color and of low specific gravity, and the quantity is undoubtedly increased. As we have heard, the patient has to get up at night to pass water, and this is one of the characteristic signs of contracted kidney, the presence or absence of which should be promptly determined by inquiry. You will note that testing for albumen by boiling and the subsequent addition of nitric acid gives a faint opalescence. The sediment is very scanty, and includes hyaline and pale granular casts. The swelling of the feet has entirely disappeared, and he feels quite well.

Let me call your attention especially to the small amount of albumen present in the urine. This is another of the most characteristic symptoms of this disease, and there may be even less than in this instance. It is important to remember, in this connection, that the amount of albumen in these cases may at times be so small as to be detected only by the most delicate tests, and sometimes not at all. In no other form of Bright's disease can it be said that albumen is ever altogether absent.

What has been said of albumen is also true of tube-casts in chronically contracted kidney. The sediment is always small, and may contain pale hyaline and granular casts, and these may even be absent at times. On the other hand, casts and albumen both are often overlooked, from want of care in the examination. The casts are always of the hyaline and pale granular variety. It is true that such casts are found in other forms of Bright's disease, and therefore cannot be relied on solely in making the diagnosis; but, when taken in connection with the small albuminuria and the increased quantity of urine, their presence indicates with considerable certainty the existence of chronically contracted kidney.

In these cases the dropsy is small in amount, and in some cases there is no dropsy whatever. It is owing to this absence of dropsy and other marked symptoms that these cases are so often

overlooked. Often the first evidence that the patient is affected with interstitial nephritis is the occurrence of uræmic convulsions. The patient may have previously been in poor health, complaining of nausea, fulness of the head, palpitation of the heart, and uneasiness, but the true cause is not suspected until convulsions set in; and often under such circumstances these end the scene. At the same time, this is by no means invariable; and I now recall a case in which recovery was considered impossible, whereas the patient is to-day journeying to California in tolerably fair health.

Although the symptoms of chronically contracted kidney are often not characteristic at the beginning, yet certain signs present themselves sooner or later. One of the most important of these is hypertrophy of the heart and of the muscular coat of the arteries. Why does this hyperplasia occur? The most rational explanation, although purely theoretical, is this: that in this form of Bright's disease the blood becomes charged with urea and other substances which are effete and poisonous, and it would seem that the arterioles attempt to resist the approach of the urea-charged blood to the tissues by contracting their muscular coat. The heart, feeling this resistance, contracts more powerfully, and the arterioles under this increased force react in turn. In consequence of this action and reaction, hypertrophy results. One of the consequences of this condition of the vascular system is high vascular tension. If the sphygmograph is applied to the radial artery, there will be, instead of the regular up-and-down movement, a prolongation of the systolic factor of the tracing. This is a tolerably constant symptom. Although not pathognomonic, yet it is an exceedingly important symptom to study, and the sphygmograph has here as practical an application as in any form of disease. If this explanation be the correct one in all instances, then it must happen that all forms of Bright's disease which last long enough should, sooner or later, be accompanied by hypertrophy of the heart. This is, however, not the case. I have seen cases of diffuse nephritis extending over many years, during which hypertrophy remained absent. In others, however, it does occur.

Let us now try to determine whether or not any of these symptoms are present in this case. First, as to high tension. This can often be recognized without recourse to the sphygmograph; but where the increase is small an instrument of precision is required. I should say that here there is a slight increase, but it is so slight that I could not assert it without the aid of the sphygmograph.

I shall next examine for hypertrophy, and what often accompanies it, palpitation of the heart. Our patient complains of the latter symptom. We find the apex-beat displaced a little to the left, and the area of cardiac percussion-dulness slightly increased. There is, therefore, evidence of a slight degree of hypertrophy associated with the symptoms of increased tension of the arterial system, as well as palpitation.

Another symptom which is also characteristic is headache and an unpleasant sense of fulness in the head. Our patient has experienced both of these symptoms.

Gastric derangements, especially a morning nausea without actual emesis, are common in this form of Bright's disease, and form a very annoying set of symptoms, persisting day after day. Such symptoms, when obstinate, should always suggest the examination of the urine.

Such patients are also very subject to inflammations of the serous membranes, and it is well to examine frequently, for pleurisy often develops latently.

Dropsy in the early stages of interstitial nephritis is not common, and often remains absent to the very end. More frequently, however, dropsy sets in towards the close of the disease, generally first appearing in the feet.

Owing to the absence of symptoms calling attention to the kidneys, and the presence of others easily explainable in other ways, this form of Bright's disease is frequently overlooked, while, on the other hand, it is the form which is least amenable to positive curative treatment.

The causes of chronically contracted kidney are often as difficult to discover as is the recognition of the disease itself. At the same time, there are well-determined causes, and there is none better demonstrated than lead-poisoning. Another cause, which is more common in England than in this country, is gout. Given a case of well-established gout, and one may be certain that he is also the subject of what is known in England as a gouty kidney,—in other words, a contracted kidney.

Another cause is alcohol, although probably not as frequently as has been alleged. It is the continuous use of alcohol, rather than the intermittent use of even larger quantities, which produces this effect. Still another cause is constant irritation of the genito-urinary passages, such as results from an impacted calculus; and more than once have I known gonorrhœa extend to the bladder and thence to the kidneys and produce interstitial nephritis. Beyond these causes it is impossible to speak with definiteness. It has been asserted that the disease may be produced by anxiety, business cares, and mental disturbances of other kinds.

What is the anatomy of such a kidney as this man is supposed to have? Here are some specimens which exhibit the condition in a striking manner. You see that this kidney is contracted, that it is smaller than natural. It does not weigh more than three or four ounces, while the normal organ weighs from five to seven. Observe the unevenness of the surface, even before the capsule is removed, and when I strip it off the substance of the kidney comes with it. This is characteristic. A closer examination will show an unevenness of the surface, which presents almost a granular appearance; and this is another characteristic. This unevenness varies in different cases. Here it is marked. These granulations, instead of being small, as in the specimen presented, may be larger, often as large as a pin's head, or even that of the head of a nail, whence a kidney of this kind has been called a "hob-nailed kidney." It is also termed the gouty kidney, and, from its appearance, the "red granular kidney," in distinction from the contracted kidney, representing the last stage of chronic parenchymatous nephritis, which is white or yellow. When the kidney is opened, it is seen that the cortex has almost entirely disappeared. It is not more than one-fourth of an inch in thickness. Microscopical examination shows over-growth of connective tissue, and the contraction of this connective tissue has caused compression and destruction of the uriniferous tubules; and in places fragments of tubules with blind ends, and not communicating with other tubules, will be found. This destruction continues until a large part of the secreting substance is destroyed. The proliferated connective tissue undergoes contraction, squeezing and destroying the tubules, just as in interstitial hepatitis the hyperplastic connective tissue contracts and destroys the secreting substance of the liver. It is on account of this analogy that the term cirrhotic has also been applied to a kidney in this condition.

Next as to treatment. In this form of Bright's disease direct curative treatment is scarcely possible. At the same time, patients thus affected may be placed under such conditions that their lives may be prolonged indefinitely. Dietetic measures are more important than medicinal, and of dietetic treatment a modified milk-diet is the best. I do not say that this will cure any case, or that it is the best treatment in every case; but I say, speaking generally, the patient is more likely, under it, to escape the symptoms which cause annoyance and threaten his life than under any other. At the same time, there are often many reasons why this cannot be adopted. It is not necessary that the milk should be exclusive, and I generally permit bread and butter and weak tea. Coffee is not advisable, for its tendency is too much to lock up the wastes of the economy. If the milk-treatment be not adopted, the diet should consist of such food as contains the least amount of albuminous animal constituents, especially red meats. The white meat of poultry, fish and oysters, may be used in preference to the red meat and blood. The objection to meat is that it produces a large amount of urea, and the kidneys are so damaged that they cannot remove it from the blood. Eggs are objectionable for a like reason.

The hygienic measures to be recommended include proper warm clothing, the avoidance of exposure to cold and wet, and care to avoid sudden checking of the perspiration.

There are certain remedies which should not be used. I am satisfied from my own experience that iron is a bad remedy to be used in this form of Bright's disease. In this affection the secretions should be free, the bowels should not be bound, and it is desirable to have rather a poor blood than to have a rich blood. The use of iron tends to increase the fulness of the blood-vessels of the head and predisposes to apoplexy.

Cold bathing should also be avoided, for this drives the blood to the internal organs and increases the risk of rupture of

a blood-vessel. Sea-bathing is dangerous in all forms of Bright's disease, but particularly so in chronic interstitial nephritis.

ORIGINAL COMMUNICATIONS.

PHOSPHORUS-NECROSIS OF THE JAWS.

Read before the American Surgical Association at its meeting held April, 1885,

BY J. EWING MEARS, M.D.,

Professor of Anatomy and Clinical Surgery in the Pennsylvania College of Dental Surgery; Surgeon to St. Mary's Hospital, Philadelphia, etc.

THE earliest observations made with regard to the occurrence of phosphorus-necrosis of the jaws were those of Lorinser, of Vienna, who published a paper upon the subject in 1845, recording cases which occurred as early as 1839; Heyfelder, of Erlangen, and Strohl, of Strasburg, shortly after reported cases and confirmed the observations made by Lorinser. In 1846, Dr. Wilks, of London, published a paper upon the subject in "Guy's Hospital Reports." In 1847 an exhaustive paper was published by Professors Von Bibra and Geist, of Nuremberg, which will be alluded to hereafter. In 1850, Mr. John Simon, F.R.S., delivered a clinical lecture at St. Thomas's Hospital, London, on "Diseases of the Lower Jaw produced by Phosphorus Fumes," illustrated by the report of two cases at that time in the hospital. Other cases were reported, by both English and Continental surgeons, between this period and 1865.

Soon after the report of the cases occurring in Germany, the attention of the authorities was attracted to the subject, and stringent regulations were made with regard to the adoption of preventive measures in the match-manufactories of that country. In 1863, Mr. Simon made a report to the Privy Council of England with regard to the prevention of the disease. His report contained the results of the careful investigations made by Dr. Bristowe upon the subject. In 1867, Mr. Christopher Heath, in the Jacksonian Prize Essay of the Royal College of Surgeons of England, gave a full account of what was known upon the subject up to that date. In this country, Dr. James R. Wood, of New York, was the first to give an account of the disease, accompanied by the history of a case in which he removed the entire inferior maxilla. Subsequently cases were reported in which the entire lower jaw or portions of it were removed by Drs. William Hunt and C. S. Boker, of Philadelphia, and one notable case by Dr. J. C. Hutchison, of Brooklyn, in which the entire upper jaw with the malar bone was excised.

The text-books on surgery contain more or less full accounts of the disease; those of Professors Gross and Agnew treat the subject at some length.

[The account of the process of manufacture of matches, and the description of the effects of the introduction of phosphorus into the system, are omitted here, from want of room.—ED.]

I have had the opportunity of examining a large number of employees in match-factories, and of studying the effects of phosphorus upon them. In sixteen cases I have treated the toxic effects of phosphorus as it appeared in different stages of development upon the system, and I have been interested in observing to what extent toxic symptoms could be traced and defined. Of these cases, the majority has been among those who are engaged in the packing-room, where the handling of the matches occurs; but one was a dipper, and four were cutters.

Of the symptoms described as giving evidence of physiological or toxicological effects, very few have been noted as prominent in the cases under my observation. Beyond instances of conjunctivitis and bronchial irritation, I have not been able to elicit definite information as to any marked effect upon the membrane of the general mucous tracts. Constipation, rather than diarrhœa, has been the condition which existed. Examination of both male and female employees has not revealed any history of aphrodisiac effects, and, in the latter, increase in the menstrual flow has not been noted to any extent. The most marked toxic symptom observed has been the occurrence of hemorrhagic transudations from the gums, and this symptom is frequently noted among the employees. Pain over the region of the liver, sick headache, nausea, and muscular debility are symptoms described by many, while well-defined icterus has not been observed in any case. I have been informed of three fatal cases, in which the immediate cause of death was phthisis,

occurring some time subsequent to operations for the relief of necrosis of the jaw.

It is evident, from the absence of symptoms of acute poisoning, that the invasion of the system by the poison is slow, establishing a chronic toxic condition which awaits some exciting cause to make itself manifest. Accepting as parts of the pathological processes, which follow toxic effects, disintegration of the red blood-corpuscles and fatty degeneration of the arterial walls, we find in the highly vascular periosteum a membrane most liable to exhibit the effects of these morbid changes. Owing to the weakened condition of the arterial walls consequent upon the state of fatty degeneration present, the vascular tension is wholly or in great part lost, and the tissue, while surcharged with blood, is in a state of innutrition, owing to the impoverished condition of the blood: so that I have observed in cases free hemorrhages taking place from gums blanched and apparently bloodless. This condition is most favorable for the development of inflammation, and this process follows promptly upon the appearance of the exciting cause.

In 1847, Professors Von Bibra and Geist, of Nuremberg, published a valuable monograph upon the subject of phosphorus-necrosis, containing a very complete and clear summary of all that had been written previously upon the subject, and also the results of their very careful investigations. The conclusions arrived at were, among others, that phosphorus was the poisonous agent, and that the effects were entirely local. These statements were regarded as proven by the experiments upon rabbits submitted to the influence of phosphorus vapor. In these animals the characteristic disease could only be produced, according to the report, after laceration of the periosteum of the jaw and exposure to the vapor. As the result of these experiments, the deduction was made that the agent acts only when it can come in direct contact with the periosteum, and that those employees in match-manufactories who are free from carious teeth can pursue the occupation with impunity. They suffer neither locally nor constitutionally. The vapor appears to be incapable of producing any general cachexia.

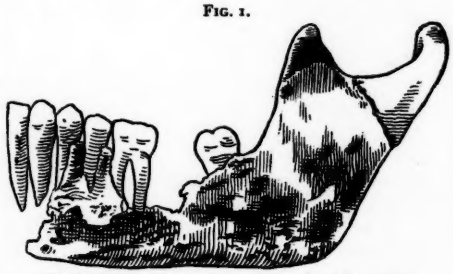
While the observations which I have made confirm, in general, the conclusions stated above, it is my belief that the statement made with regard to the local effects and the introduction of the poison through carious teeth should be received with some modification. I have examined a number of employees who have had carious teeth and were yet free from the disease and have continued to work in the factories exposed to the phosphorus vapors, also those who have had teeth extracted and have returned immediately to work in the factory and have not suffered from necrosis. A number who have suffered from the disease have given, as one of the symptoms which first attracted their attention and caused alarm, the sensation of a protrusion of a number of the sound teeth, or, as expressed by them, an elongation of their teeth. This condition would occur and then disappear, being the result apparently of an accession of cold. In one case the teeth, on two occasions, became quite loose and the gums much swollen and very sensitive. This condition of protrusion of the teeth from the alveoli indicated an inflammation of the peri-dental membrane, a structure which is continuous with the periosteum, and which lines the walls of the alveoli and surrounds the roots of the teeth. In all of the patients whom I have been able to examine in the early stages of the disease, I have found an accumulation of tartar around the necks of the teeth; in some this tartar has existed in large plates extending beneath the gum and covering the bodies of several teeth to the crown. This accumulation is a source of constant irritation, and, being lodged at the point at which the periosteum turns into the alveoli, gives rise readily to irritation of the peri-alveolar and peri-dental membrane. Assuming the correctness of the statement as to the pathological condition which the periosteum acquires as a result of a chronic toxic condition, we find in the carious tooth or in the accumulation of tartar a source of irritation which is competent under favorable conditions to develop inflammation. It is not my belief that the poison impresses the membrane primarily through the carious tooth, as stated by Professors Von Bibra and Geist, or the peri-dental membrane laid bare by the accumulation of tartar around the neck of the teeth which may have caused a recession of the mucous membrane and slight absorption of the alveolar process, but that these conditions, *per se*, under the influence of some exciting cause, as cold,

etc., light up in the periosteum, already in a morbid condition produced by constitutional impression of the poison, an inflammation which, if not arrested, results in necrosis. The pre-existing condition, it seems to me, is therefore a morbid state of the periosteum, which under an exciting cause readily inflames; often exciting causes are found in the teeth; a carious tooth, with the pulp exposed (which structure by some of its tissues is continuous with the peri-dental and peri-alveolar membrane), and with tartar accumulations, gives rise to an irritated and sensitive condition of the borders of the reflected periosteum. It is a matter of observation that the periostitis which develops in connection with other causes (with the exception possibly of syphilis and mercurial poisoning) is in many cases of a local character, whereas that which precedes phosphorus-necrosis is, as a rule, general, passing rapidly to involvement of the entire bone, unless interfered with. In this, as in some other respects, it resembles syphilitic periostitis. In the tertiary form of syphilis the periosteum of the jaws is very prone to inflame under the irritation of carious teeth or the violence inflicted in the efforts at extraction. In the cases of phosphorus-necrosis coming under my care, in the advanced stages of the disease, the uniform statement by the patient has been to the effect that, suffering pain in a carious tooth or in a sound tooth, a visit was made to the dentist and extraction was performed. In a day or two the jaw began to swell, and following that a discharge appeared from the point of extraction,—the history of the beginning of suppurative periostitis caused by the efforts at extraction. In some cases I have found portions of the teeth remaining and the alveolar process greatly broken. The results of the experiments obtained by Professors Von Bibra and Geist upon rabbits are not at variance with the views expressed above, since, according to the statements made, the animals in some instances were exposed for a period of time to the fumes of phosphorus before the periosteum was removed and the bone denuded, and it is quite reasonable to believe that, being easily impressed by the poison, a morbid condition of the periosteum had supervened, so that the laceration of the membrane was sufficient to excite the inflammation. In those animals in which the lower jaw was fractured, laying bare the roots of the molar teeth previous to the exposure to phosphorus vapor, there were evidences, on post-mortem examination, of serious constitutional as well as local effects.

The specific inflammation excited in the periosteum progresses rapidly, and results, in cases of the lower jaw, in the formation of laminated layers of new bone, which envelop the jaw, stopping at the borders of the alveolar process in front and behind, but completely surrounding the angle, ramus, and both processes.

In a number of the specimens removed by me, the new bone formation had encroached upon the articulating surface of the condyloid process (Figs. 1 and 2), and

FIG. 1.



Condyloid process covered with new bone formation.

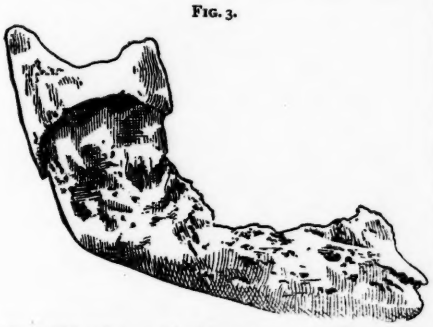
FIG. 2.

Condyloid process covered with new bone formation.

in one instance completely covered both condyloid and coronoid processes (Fig. 3). An interesting result has occurred in one case under my observation, in which the patient refused operative interference. The necrotic action had continued for six years, and the layers of new bone had united over the position of the alveolar border, thus entirely enclosing the sequestrum, which is

slowly disappearing, the discharge escaping externally by a sinus at the angle of the jaw. The muscles attach themselves to the periosteum covering the new bone, and are lifted off, as it were, with that membrane.

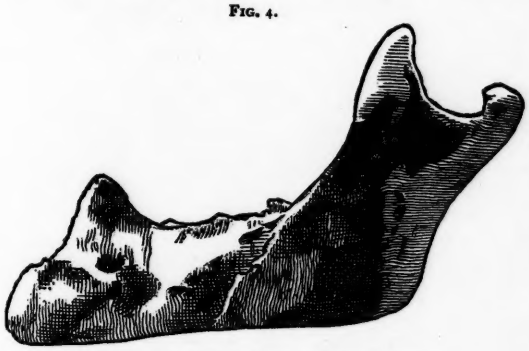
FIG. 3.



Condyloid and coronoid processes covered with new bone formation.

In some of the specimens in my collection portions of the new bone have exhibited the pumice-like appearance described as characteristic of this specific form of inflammation (Fig. 4). This appearance

FIG. 4.



Pumice-like deposit on body and part of ramus.

has also been observed upon the surface of the sequestrum. In other instances it has been absent, in this respect confirming the opinion which has been expressed that it is not present in every case, and therefore not pathognomonic.

Professors Von Bibra and Geist have made careful examinations microscopically and chemically of the bone deposited by the periosteum in these cases. It is described as "lamellated, with large Haversian canals, not running *parallel* to the general direction of the bone, but placed at right angles; the lacunæ are rounded off. The proportions of organic and inorganic matter vary, the average being in eight specimens—organic matter, 32.4; inorganic, 6.76."

Mr. John Adams, in a clinical lecture published in the *Medical Times and Gazette*, July 5, 1852, states that these conditions are not observed in bone formed as the result of common inflammation.

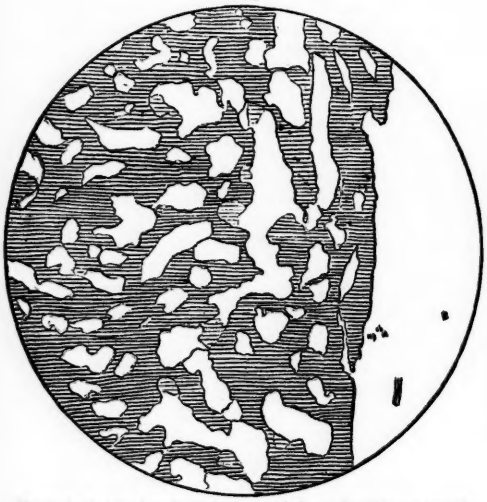
Mr. Thomas Smith, in the St. Bartholomew's Hospital Reports, vol. i., reports a case from which he removed the sequestrum of the entire lower jaw, the newly-formed jaw showing on microscopic examination "all degrees of development, from a finely fibro-nuclear matrix up to perfect bone. The bone differs from ordinary compact bone in being excessively vascular, the Haversian canals being very large, near together, freely anastomosing, and here and there in their walls presenting fusiform and pouch-like dilatations,—in fact resembling, in their outlines, veins slightly varicose. The bone is thickly studded with lacunæ, and these are peculiar in being very large in their cavities, less uniform in their general outline, and containing fewer canaliculi than is usual in well-formed bone. In the newest parts of the bone the lacunæ are merely irregularly-formed cavities without distinct canaliculi." These appearances correspond largely with those observed generally in new bone formations, and do not seem to me to be sufficiently distinctive to confine their description to formations occurring as the result of phosphorus-necrosis.

I append the report of Dr. Morris Longstreth upon a specimen of new bone formation taken from one of the cases under my care, and submitted to him for examination:

In the specimen of periosteal outgrowth from the case of phosphorus-necrosis of the lower jaw, two sets of sections have been made,—one vertically to the surface, including the entire thickness of the growth; the other horizontally. The sections (Figs. 5 and 6) show as their striking features the enormous size of the canalization system and the slenderness of the bone-trabeculæ. In the horizontal sections the canals appear of a greater diameter than in the vertical sections. The thickness of the bone-trabeculæ appears about the same in whatever direction

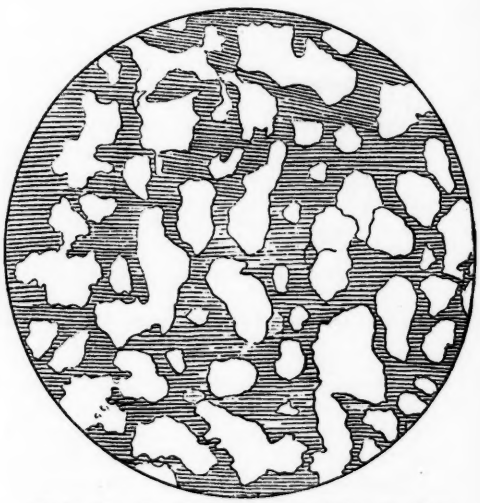
the tissue is cut. The inference to be drawn from this arrangement is that the canals, being connected with the vascular system either of the jaw-bone on the one hand, or on the other with that of the periosteum, have their extension chiefly in the vertical axis. This mode of distribution is evident from a naked-eye examination of the specimen, and is especially evident on its under surface; the upper surface is denser and more compact. It would give a wrong impression to assert that the canalization is wholly in the direction of the vertical axis. The ramification of the canals proceeds in every direction through the substance of the new formation of bone, as can be seen by the varying angles of obliquity at which the canals are found to be cut in the section. The new substance is rather like a sponge, in which the channels of the largest size are in general vertical, as is but natural, since the other channels with which they communicate

FIG. 5.



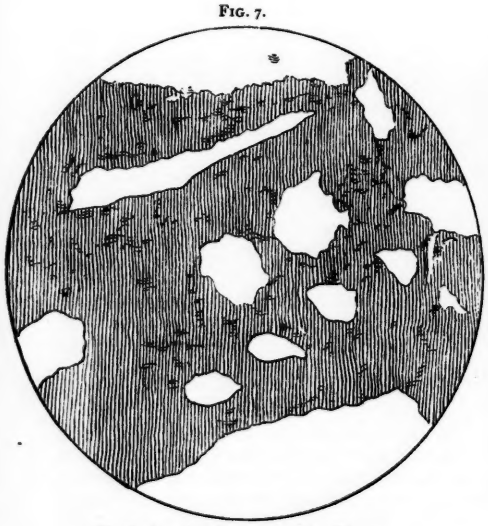
Vertical section of periosteal outgrowth from phosphorus-necrosis of jaw.*

FIG. 6.



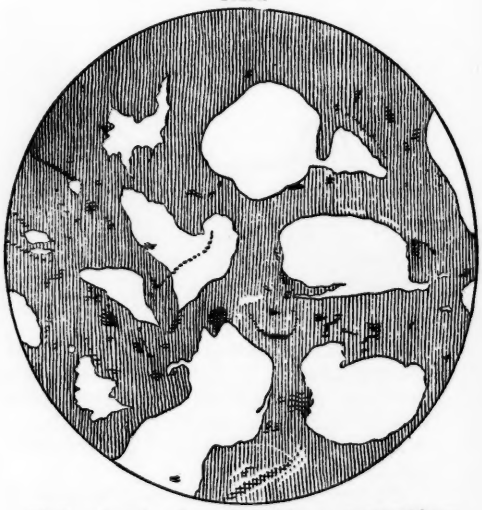
Horizontal section of periosteal outgrowth from phosphorus-necrosis of jaw.

FIG. 7.



Vertical section from periostitis of femur.

FIG. 8.



Horizontal section of an outgrowth from periostitis of femur.

* The wood-cuts are copied from photo-micrographs taken with a one-quarter-inch lens, natural size about 50 X.

are seated in the directly subjacent jaw or the superimposed periosteum.

Compared with other periosteal outgrowths originating from other causes than phosphorus-necrosis, it will be seen that the same arrangement of canalization holds true as in this specimen. Here, in vertical and horizontal sections from a periosteal outgrowth from a femur (Figs. 7 and 8), the horizontal sections show larger-sized canals than the vertical sections, while the bone-trabeculæ in these two sets of sections (periostitis of femur) have about an equal thickness. The outgrowth from the femur shows about the same macroscopic appearance as that from phosphorus-necrosis, except that the former is much more dense. The latter may be cut with a knife, the former requires a saw for its division.

Compared with normal bone, the chief direction of the canalization system is found to be governed by the same principles in the normal as in the pathological growth. The law is that the canals pursue the same general course as the blood-supply most nearly contiguous to them. On or near the periosteal surface the canalization is more or less vertical, perhaps tending somewhat horizontally, inclined towards the distal extremity in the long bones. In the deeper layers of the compact tissue of the long bones the canals conform in their direction to the long axis of the bone. In flat bones the canals are almost wholly placed vertically in reference to the periosteal blood-supply. In the periosteal outgrowth the canalization system is found, therefore, to conform to the law governing normal tissue.

In respect to the cellular elements, bone-corpuscles, etc., found in this periosteal outgrowth from phosphorus-necrosis it is impossible to speak, since the specimen is a dried one from which the softer tissues have disappeared.

The lamination which is visible in the specimen, and which is of not uncommon occurrence in periosteal outgrowths, is much more apparent than real. A section made through the junction of the two laminæ, very distinct to the naked eye, does not show to microscopic vision any differentiation of tissue or any disturbance of the arrangement of the canalization system, which is apparently continuous through the two superimposed laminæ. The laminæ are to be regarded as marking the steps of the growth,—a temporary cessation of the formation of the periosteal deposit or outgrowth. The new lamina cannot be regarded as a *de facto* commencement of a new process, but merely as a continuation of the old morbid process, with a very short interval or halt.

With regard to the reproduction of bone after phosphorus-necrosis involving the upper jaw, the cases under my care have confirmed the experience of others who have had opportunities to observe similar cases. In no instance has there been more than a development of fibrous tissue after loss of substance. M. Ollier, of Lyons, records one case of phosphorus-necrosis of the upper jaw in which a certain amount of new bone was produced. He also quotes a case reported by Billroth of a similar character. Mr. Heath, in his work on the jaws, states as his opinion that these cases must be regarded as quite exceptional.

The permanent character of the new bone formation has been called into question by Mr. Salter, who states in his article in Holmes's Surgery, vol. iv., that the "repair of the lower jaw is but temporary; for, after a time,—often a considerable time,—the new bone diminishes by absorption to a mere arch." He has found this state of the bone in one case in which the lower jaw had been removed ten years, and asks as a question of theoretical interest and of practical importance how far this loss can be prevented by supplying it with a function through the means of artificial teeth. While more or less absorption does undoubtedly occur, it has been my observation that this condition is affected largely by the period of time in the deposit of the new bone at which, and the manner in which, the operation for removal of the sequestrum is performed. If removal of the sequestrum be delayed until well-formed plates of bone have been deposited, and care be taken in separating them from the sequestrum to avoid their fracture or dislocation, the absorption which naturally follows will not seriously impair the permanent character of the new-formed bone (Fig. 9). In one case in which I operated in 1881, removing two-thirds of the lower jaw, from the articulation on the right side to the first molar on the left, the new bone formation has not exhibited any marked decrease in size up to this period, and the patient has been able to wear with comfort and satisfaction an artificial denture for the past three years (Fig. 12). In another case, in which a large portion of the new bone deposit had been removed as a primary operation and with the intention of interfering in this manner with the progress of the disease, another layer of bone formed from the periosteal surface, which, however, lacked the density and firmness of

the lamellæ deposited originally; as a result, a greater degree of deformity occurred in the case than in others in which care was employed to remove the sequestrum without disturbing to any extent the new bone formation. Whether the adaptation of artificial dentures will in any degree diminish the tendency to absorption is to me a question: it would seem that the pressure exerted and friction produced by the movement of the denture upon the newly-formed and rather imperfect bone would develop absorptive action rather than diminish it. Notwithstanding, I always endeavor to have dentures adapted, in order to supply the loss so much felt by patients.

FIG. 9.

Appearance of patient after removal of right half of lower jaw; new bone well formed.

FIG. 10.

Sequestrum removed from patient shown in Fig. 9.

With regard to the relative frequency with which the upper and lower jaws are attacked, the cases under my care have shown a decided proportion in favor of the lower jaw. Out of sixteen cases, the lower jaw was involved in eleven, and the upper in five; in three both upper and lower jaws were attacked, the upper in a much less degree than the lower. This preponderance in favor of the lower jaw has been observed by the German and other authorities. Of fifty-two cases reported by the former, as stated by Mr. Heath, twenty-one were of the superior maxilla, twenty-five of the inferior, and five in which both were involved. Mr. Salter (Holmes's Surgery, vol. iv.) records five

FIG. 11.

Sequestrum representing two-thirds of lower jaw, right side. (From patient shown in Fig. 12.)

FIG. 12.

Appearance of patient with artificial denture after removal of two-thirds of lower jaw from right side.

cases under his care, in four of which the lower jaw was diseased, and the upper in one. In seventeen instances of which he obtained information, nine were connected with the superior and eight with the inferior maxilla. In Agnew's analysis of one hundred and eleven cases, fifty-eight were of the lower and forty-one of the upper, with twelve in which both were involved. From the information I have been able to obtain with regard to cases occurring in this country, the lower maxilla appears to have been attacked more frequently than the upper. These cases show, as in those under my care, that the upper jaw is not, as a rule, involved to the same extent as the lower,—the disease being limited rather to the alveolar border. This comparative immunity enjoyed by the superior maxilla is to be explained, it seems to me, by the difference in the configuration, the character of the structure, and the blood-supply of the two bones. The presence of the sinus within the body of the superior maxilla, lined by a membrane endowed with a good blood-supply, would enable the bone to resist the advance of the necrotic action. The absence of a large amount of cancellous tissue, as compared with the lower jaw, would also favor this immunity, although Mr. Heath is of the opinion that necrosis occurs less frequently in cancellous than in compact bone. Such has not been my observation in connection with necrosis of the lower jaw arising from various causes, since in many instances the dense compact base of the bone seemed, as it were, to afford a barrier to the advance of the disease.

The symptoms of phosphorus-necrosis differ from those of ordinary necrosis mainly in intensity. The pain, which is one of the earliest symptoms, is at first intermittent, but in time becomes continuous. It is also more diffuse from the first, involving the entire bone. The first and second stages are, as a rule, rapidly passed through, and suppurative periostitis manifests itself in the peri-alveolar and peri-dental membranes, causing the teeth to become loose and pus to exude from the alveoli. The inflammation quickly extends, involving the structures of the gums, and detaching them so as to expose the alveolar border. Infiltration of the tissues of the face follows, and swelling, which produces marked deformity, occurs. Soon the inflammation invades the entire periosteal layer, the formation of the laminated bone can be distinguished, and offensive discharges escape into the mouth; in the case of the lower jaw, the pus gravitates to the base and escapes by sinuses at this point (Fig. 13) or at some point

FIG. 13.

Necrosis of left half of lower jaw, with sinuses opening at the base.

lower down. In one case under my care the sinus had opened at the upper border of the clavicle before the patient presented herself to me for treatment. In some instances the pain continues during the suppurative action; as a rule, it is much diminished or disappears. When the inflammation involves the condyle of the lower jaw, great pain is experienced in the ear of the affected side, and occlusion of the jaws, which before may have been partial, now becomes complete. The interference with the ingestion of proper food, owing to the condition of the mouth; the suffering endured by the patient, associated with the constant presence in the mouth, and the swallowing, of the offensive discharges from the dead bone,—all combine to deteriorate in a marked degree the general health of the patient. Unless proper remedial measures are resorted to, death may ensue from exhaustion, or, in very severe cases, from gangrene of the overlying soft structures. In rare instances, such as the one alluded to in another part of this paper, the disease may assume a chronic form and the general health may be maintained during a period of years, while the sequestrum slowly dis-

integrates and the débris is carried off through sinuses.

The treatment may be divided into that of three stages: primary, intermediate, and secondary. The primary stage may be described as that in which the periosteum, in its morbid condition, manifests the results of beginning irritation. Unless alarmed by the occurrence of necrosis in a fellow-workman, the patient rarely presents himself for treatment in this stage. Pain in the bone of a diffused character—intermittent in occurrence, with the sensation of protrusion of the teeth—and soreness in the gums, with hemorrhagic transudations during mastication or upon the use of the tooth-pick, are the chief symptoms present in this stage. An examination may reveal one or more of the teeth in a carious condition; around the necks of the diseased as well as of the sound teeth a collection of tartar extending some distance beneath the gums and displacing the soft tissues; a softened condition of these structures, with a discoloration of a purplish hue. In this stage the treatment relates to the condition of the teeth, which should be conducted with the utmost care in order to avoid the production of periostitis, and the administration of remedies which are antidotal in character. Those teeth which are too much diseased to be saved by treatment should be extracted, especial care being taken to avoid fracture of the tooth or of the process. Collections of tartar should be thoroughly and carefully removed, the instrument being carried well up under the gums to remove any that may be lodged in this position. The carious teeth should receive careful treatment, so as to relieve the sensitive condition which exists and to avoid by gentle manipulation the development of peri-dental inflammation. Temporary fillings should be inserted until such time as it may be prudent to employ those of more permanent character. The soft structures should be bathed with detergent and astringent lotions, as phenol sodique, alcohol, tincture of myrrh, etc., in dilute solutions.

The constitutional treatment should consist in the administration of anodyne remedies, to relieve pain and soothe the general system, and of that agent which is regarded as possessed of the power to neutralize the effects of the poison and arrest the disease. Dr. Letheby, in his work on "Chemistry of the Poisons," recorded his observations upon the power of the vapor of turpentine to neutralize that of phosphorus. Andant, quoted by Bartholow, was the first to report cases in which the antidotal properties of turpentine were observed; and Personne, by experimental demonstration, confirmed the observation of Andant. The latter further inferred that, "as turpentine destroyed the luminosity in the dark and arrested the escape of the vapor of phosphorus, it acted similarly as an antidote in preventing the combustion of phosphorus in the blood and the consequent consumption of the oxygen." Höhler and Schimpf (Bartholow) showed by experiment that the commercial oil of turpentine (that which had been exposed for some time to the air and was therefore rich in ozone) was the only variety efficient as an antidote; that this form prevented fatty degeneration of the tissues; and that while under its influence no free phosphorus could be found in the animals experimented on.

In the cases which have come under my care, five have presented themselves in the first stage of the disease, and in these I have been enabled to employ the plan of treatment outlined above. In two, treated some three years since, the disease was arrested in the primary stage. At present I have three patients under this plan, and in these there are positive evidences of improvement.

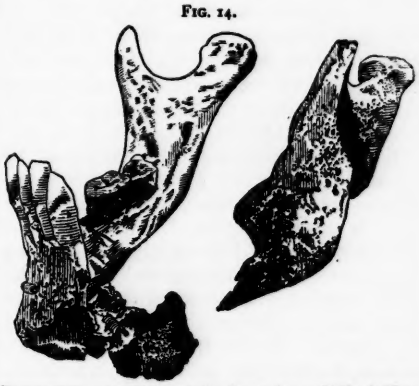
In the stage which I have designated as the intermediate, in which the inflammation of the periosteum is well established, the plan of treatment should be such as to arrest, if possible, the inflammatory action, and thus limit the destruction of bone. Active antiphlogistic measures are here indicated; free incisions of the periosteum, the knife being carried to the bone, should be employed, and the use of such internal remedies as will assist in combating the condition of inflammation. According to my experience, the efforts to arrest the progress of the disease in this stage are, as a rule, without much avail: the specific character of the inflammation, so far as relates to its cause, and the rapidity with which it becomes general, seem to resist any successful interference. Measures should always be adopted, however, with the hope of at least limiting the subsequent necrosis.

When the inflammation has passed to

the suppurative stage and the death of the bone is accomplished, the treatment should consist in that which is supportive and expectant. Warm water should be freely used to cleanse the mouth, after which very dilute solutions of carbolic acid, iodine, or permanganate of potassium should be thrown upon and around the exposed bone with a syringe, so as to disinfect the parts and remove the collections of pus. A layer of seven-and-one-half-per-cent. iodoform gauze should be packed around the exposed bone so as to receive the secretions and prevent as far as possible their escape into the mouth and mixture with the food. If sinuses have formed, they should be cleansed by injections of medicated solutions as advised for the mouth, and a mass of iodoform gauze and cotton should be placed over the openings and held in position by a bandage. Poultices and warm fomentations should not be applied to the face, as they increase the suppurative action and invite the flow of pus to the surface, resulting in the formation of sinuses and consequent disfigurement. Nothing should be done to interfere with the bone-reproduction. No efforts at removal of the sequestrum should be made until the necrotic action is completed and the reproduced bone is sufficiently firm to preserve the shape of the original bone. In three of my earlier cases I endeavored to arrest the progress of the disease by cutting away the exposed process and scraping off the periosteum with the layers of new-formed bone. In no instance was the operation successful in stopping the disease, and the deformity which followed the subsequent removal of the complete sequestrum was greater than in cases in which this plan of treatment was not attempted.

The sequestrum should be removed through the mouth, care being taken to separate the laminæ of new bone entirely, so that they will not be fractured or drawn away with the sequestrum. When the disease has invaded the condyloid and coronoid processes of the lower jaw, the disarticulation is easily effected after incision of the structures in front of the ramus. In some instances it may be necessary to divide the ligaments of the articulation with the probe-pointed bistoury. When the entire lower jaw is involved, I have found it desirable, in order to preserve the contour of the parts, to remove but one-half at a time. After the expiration of eight or ten weeks, the remaining portion may be removed. (Figs. 14, 15.)

FIG. 14.



Sequestrum representing entire lower jaw. Right half removed ten weeks subsequent to removal of left half.

FIG. 15.

Appearance of patient after removal of the entire lower jaw.

After the removal of the sequestrum, the cavity between the two layers of new bone should be cleansed and packed with seven-and-one-half-per-cent. iodoform gauze; at each dressing the quantity used should be lessened, in order to permit of the approximation and consolidation of the bone-plates. For some time after removal of the sequestrum in the lower jaw, a bandage should be applied so as to support the new bone. After removal of the sequestrum in the upper jaw, the same form of dressing should be used until the

cavity is closed by the fibrous tissue which forms, as a rule, in place of the bone.

During the period of suppuration, the strength of the patient is to be maintained by the administration of preparations of iron and quinine, concentrated food, and well-regulated exercise in the open air. Care should be taken to avoid exposure to cold, and the hygienic surroundings should be carefully attended to.

The prevention of the disease is to be accomplished by the joint efforts of employers and employees. The introduction into the manufactories of systems of ventilation which will promptly remove the phosphorus fumes and as well the smoke from burning matches, will contribute materially to prevent the occurrence of the disease. While this may be accomplished successfully so far as relates to certain parts of the works, there are practical difficulties in the way of securing it in those rooms in which the matches are handled and constantly igniting, owing to the great danger which would arise from serious conflagrations if currents of air sufficient to remove the fumes and smoke were introduced. Efforts should, however, be made until some safe method is devised to accomplish this. In one factory with which I am familiar, exhaust-fans have been arranged so as to remove the fumes promptly from over the dipping-machines. Since the introduction of this plan, the employees working at these machines have been free from disease. Experience has proved the value of turpentine in neutralizing the toxic effects of the phosphorus fumes; and, as in the factories in England and on the continent of Europe, the employees in this country should protect themselves by wearing open, wide-mouthed bottles containing this agent, suspended by straps around the neck so that they should rest upon the anterior surface of the chest, affording in this way ready inhalation of the vapor. At various points in these rooms, protected from fire, large shallow vessels containing turpentine should be placed, in order that its vapor may come in contact with that of the phosphorus and neutralize it. The substitution of amorphous phosphorus, which does not fume, for the common phosphorus in the manufacture of matches has been recommended. The chief objections to its use are the cost, which is stated to be double that of the common phosphorus, and its want of ready fusibility. The safety match, which is being gradually introduced into use, is stated to contain no phosphorus. The chemically-charged paper attached to the boxes is said to contain amorphous phosphorus, and the manufacture, therefore, of this form of match should be free from danger.

On the part of employees, immunity from danger can be secured by the use of turpentine (as suggested above), frequent inspection of the teeth, and cleanliness. Inspections of the teeth should be made frequently, all accumulations of tartar should be removed, and carious teeth carefully extracted or treated and filled. During the treatment of the teeth or immediately after extractions the patient should not engage in work in the factory. Careful washing of the hands before taking food should be insisted upon and enforced by those in authority, and if it is necessary that the noon meal should be eaten in the factory, a special room should be provided for this purpose separate from the others.

I feel quite confident, from the investigations made by me in connection with the cases which have been under my care, that it is possible, by the adoption of proper methods of ventilation in the factories and the enforcement of proper regulations relating to the employment of antidotal agents and strict attention to cleanliness, to prevent the occurrence of the disease. It affords me pleasure to state that the largest manufacturing establishment in this country, The Diamond Match Company, which exercises the most liberal care of those attacked with the disease, is also keenly alive to the importance of securing its prevention by all available means.

I desire, in conclusion, to submit the following propositions:

1. That the disease is a local expression of the constitutional condition produced by the inhalation of the vapor of phosphorus, and by particles of the agent taken into the system with food by operatives in match-factories who do not give proper attention to cleanliness of the hands.

2. That the introduction of the agent into the system is, as a rule, very gradual, and in such small quantities as to avoid the production of symptoms of acute poisoning; that in this way the chronic toxic condition of the system is induced, characterized chiefly by disintegration of

the red blood-corpuscles and fatty degeneration of the arterial coats.

3. That the toxic condition precedes the jaw-disease, as is shown by the fact that the disease does not attack operatives recently exposed to the action of the agent, but those who have been exposed for a period of years.

4. That examination of the teeth of operatives has shown that many who have caries, and have returned to work immediately after the extraction of teeth, have enjoyed immunity from the disease, showing that the agent had not attacked the periosteal tissue thus exposed. This was further shown by the fact that in one of the cases necrosis did not appear until three months after labor in the factory had ceased.

5. That individuals vary in their susceptibility to the action of the poison. For this reason many suffer immediately with acute symptoms, such as nausea, vomiting, etc., and are compelled to abandon work in the factories.

6. That the conditions under which experiments have been made on animals, to prove the absence of the disease until exposure of the periosteum and peri-alveolar tissue was effected, are not similar to those to which operatives in match-factories are subjected.

7. That treatment of the disease in the primary stage is efficient and prevents its progress.

8. That the antidotal powers of turpentine have been established.

9. That the disease is to be prevented among operatives by the adoption of thorough methods of ventilation, stringent rules with regard to cleanliness, and the free disengagement of the vapor of turpentine in all the apartments of factories in which the fumes of phosphorus escape.

THE PENNSYLVANIA HOSPITAL AS A TRAINING-SCHOOL FOR PHYSICIANS.*

BY HENRY H. SMITH, M.D.,
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WHEN the happy thought of our friend Richard Cadbury, the able steward of this hospital, led in June last to a social gathering of those who had served or were serving the institution as resident physicians, it brought together not only the few who dated back nearly half a century, but also many of those of a more recent period.

At this meeting, the pleasure excited by the renewal of old associations was very apparent, whilst the varied anecdotes and "inedited legends" of the house showed that the course of the Pennsylvania Hospital in the relief of the sick and destitute continued onward.

The acquaintances then renewed or formed between the residents of various periods proved that the bond of union was the pride each one took in the institution he had served in his youthful days, all admitting the professional benefits derived from this his former field of service.

At this gathering pleasant memories were revived by speakers representing the various decades of the service of the residents then present, and sad reminiscences followed the mention of such as were removed from our circle by the hand of death.

After enjoying "the flow of soul" of our excellent host of that evening, in aqua pura frigida, it was resolved that "the feast of reason" should be inaugurated by creating an organization that, meeting annually, would preserve the fraternal ties of professional interest made evident by so large an assembly, and indicate the value of the Pennsylvania Hospital as a training-school of physicians.

Having been recently requested by our executive committee to read on this occasion "a paper on any subject that might suggest itself," I have cheerfully assented to their wish.

Permit me, then, briefly to allude to a few of the important results gained by our profession and the public from the development of this hospital as a clinical school. As this can be best demonstrated by reference to some points of practice that originated in its wards, I shall allude to a few with which I am familiar either by study or personal observation, leaving to others of those present the pleasant duty of anecdotical reminiscences of their experience as residents of this hospital.

That the wards of this hospital have largely contributed to the relief of thousands is well known everywhere, but their special utility as an educational means has not been so distinctly alluded to from the

*Read at the first annual meeting of the Association of Resident Physicians of the Pennsylvania Hospital, December 17, 1885.

stand-point of those who resided in the house.

As the resident physicians of each term gained much of their practical skill from the experience and precepts of the attending physicians and surgeons, I propose, in illustration of this point, to rapidly enumerate a few well-known subjects which, starting in the practice of the hospital, were subsequently developed for the benefit of the health and lives of many families throughout our country, by residents who subsequently became their medical advisers.

To specify a few of these, prominently brought to the knowledge of the profession by such men as Physick, Hartshorne, Parrish, Hewson, Harris, Barton, Randolph, and others of a more recent day, is all that time will now admit,—such as the paper of Physick on "The Use of Animal Ligatures," published in the *Eclectic Repertory** in 1816, in which he proved, by experiment, that ligatures of buckskin, parchment, and catgut were readily dissolved, but that catgut was the most enduring: so its recommendation by recent gynæcologists is nothing new. Hartshorne's, Parrish's, and Hewson's experiments on the best means of arresting hemorrhage were likewise performed in connection with this institution.

The invention of Parrish's needle for ligating deep-seated arteries, that was so useful as to be afterwards claimed in New York, was another item; and Physick's cure, in 1802, of John Hius's false joint in the humerus, by introducing a seton between the ends of the bone, not only instructed those who saw the case, but the bone, which is yet in the Wistar & Horner Museum,† continues to enlighten generation after generation of medical students by showing the increased nutrition in bone thus excited.

Barton's operation for the relief of an anchylosed hip-joint, and that of wiring a fractured patella in 1834, were performed in our surgical wards, and the latter is now being revived in practice after lying dormant so many years, although the unfortunate result of his case has not always followed. In this house Randolph made his reputation in lithotripsy in the patients he so brilliantly cured in 1837 to '39.

Nor was the instruction of the hospital limited to its surgical wards. At an early period (1803) Benjamin Rush drew much of the knowledge he so widely disseminated in his lectures and "Medical Inquiries" from its patients; and it should not be forgotten, when Pasteur is now directing attention to the prevention and cure of hydrophobia, that Rush detailed an autopsy of a case of hydrophobia, and urged the adoption of Physick's proposed operation of tracheotomy or laryngotomy to obviate the effects of the spasm of the glottis that causes death in this dreadful disorder.‡ To Dr. Rush has also been assigned the suggestion of the cure of intermittent fever by pills made of cobweb,—the secretion of the spider known as the *Araneæ tela*,—a remedy which is said to have been originally prescribed by Dioscorides in the second century for the same purpose. As history repeats itself, this remedy has been recently (1885) revived by Dr. MacDonald, of New York City, for the same disorder; he recommending a tincture formed by macerating for forty-eight hours a bunch of cobweb of the size of a large walnut in f℥iv of whiskey, and then filtering. Of this a teaspoonful is to be taken every hour for four hours before the expected chill, etc.

Another item connected with the practice of a former day may be recalled in the fact that here Otto, with his rough pharmacy, in Parrish's cider and horse-radish mixture, cured dropsy, or relieved rheumatism with guaiacum and the decoction of the woods, as promptly and effectually as by propylamine, salicylic acid, or any of the more finished prescriptions of the present day; and it was likewise in these medical wards, as is well known to many, that B. H. Coates, Gerhard, Stewardson, and Wood pointed out at various periods, in post-mortem demonstrations, the changes created by disease in fevers and affections of the chest and abdomen.

It is, however, to the results of the labors of our former residents, rather than to those of the staff, that I now desire to direct attention.

The resident physicians of this house, in the early days now alluded to, had special opportunities for gaining knowledge. During the years prior to 1850, *this* was the main hospital of our city. The Almshouse, which until 1834 was on Spruce

* Vol. vi. p. 389.
† University of Pennsylvania.

‡ Medical Repository, vol. i. p. 105, 1804.

Street, between Tenth and Eleventh, only presented the student with chronic cases of disease in worn-out systems, and did not usually receive recent accidents, nearly all of which, if happening within twenty-four hours' travel of this city, were brought to the Pennsylvania Hospital; and I can recall one 1st day of May when seven severe cases of fracture were received on that day. At this period there were but two resident physicians in the house, each of whom served two years, and alternately took charge for six months of about two hundred insane cases, the male and female medical wards, as well as the obstetrical ward at the "Picture-House," on Spruce Street, each case of labor being attended in turn by each resident; or of both male and female surgical wards, where not unfrequently there were eighty beds to be dressed each day. The attending physician, surgeon, and obstetrician then only visited the wards on Wednesday and Saturday, as a general rule, unless in the judgment of the resident the case was so serious as to demand an immediate or more frequent consultation. The care of the insane alone was a heavy duty; and when the house suffered from the frightful mortality that attended two severe epidemics of puerperal fever, and which, strange to say, were always attended by a severe epidemic of erysipelas in the surgical wards, one being on Spruce Street and the other on Pine, notwithstanding all precautions taken in non-intercourse of attendants, it may readily be seen that the office of a resident physician was no sinecure. Twenty years' experience in private practice could not furnish such opportunities as then existed for a resident physician to gain a varied knowledge of his profession and to acquire habits of industry and self-reliance in emergencies, that never afterwards deserted him.

Prior to 1840 the insane patients occupied the portion of this building usually designated as the "West End," where Captain Poirier, in excellent French, instructed every one in the "Code Napoléon" and its application to all who unjustly restrained him of his liberty; and it was in the care of these patients that a resident in 1834–35, though specially interested in surgery, laid the foundation of that knowledge of insanity that, after 1840, as physician-in-chief of the department of this institution in Blockley, made him so widely known as an alienist that the public usually designated the Department of the Pennsylvania Hospital for the Care of the Insane as "Kirkbride's Institution."

In thus rapidly alluding to former medical officers of this hospital, it must not be supposed that I fail to recognize the beacon-lights of the profession now existing in its present staff. Time has not yet ripened their harvest, which, when gathered by some future historian, will doubtless exhibit its own heavy crop of brilliant thoughts and acts.

Nor is it wished invidiously to compare the present duties and labors of our residents with those of a former period. On the contrary, if any good is to be derived from this reference to the past practice of the house, it should be drawn from the fact that it exhibits the wonderful opportunities for gaining a sound practical education, offered then (as now in a modified form) to all who were fortunate enough to receive the appointment of resident physician in so large and varied a hospital, and should impress each one with the responsibility that rests upon him to make good use of his faculties for study from nature at the bedside, remembering that idleness or neglect of duty is not only a wrong to those whose lives may hereafter be intrusted to his care, but is also a wrong to his professional brethren, by depriving them of facts which it is his place to collect and publish. The professional reputation of more than one now prominent physician commenced in the report of cases and comments thereon, made in his early medical life while a resident of this hospital.

A peculiarity in the education of the residents, furnished by this house, that is daily becoming more apparent, is seen in the wide sphere presented for observation and study. The growth of specialties and the limitation of medical attendance on separate organs, as if the human body were not an entity, with each part dependent on the proper action of its fellow-organ, is, it may be feared, not likely to augment the class usually known as general practitioners, or the highly educated and accomplished physician of extended and varied experience, who recognizes the human frame as a compound organism formed of parts mutually connected by vital affinity.

Such practitioners as the "family doctor," a class much underrated by conceited specialists, met nearly all the medi-

cal wants of a family, whether in attendance on the mother in her confinement, or the father with an injured limb or a hernia, or the children in the diseases of childhood. These men became familiar with and readily recognized the physical peculiarities or idiosyncrasies of each member of a family, and, not unfrequently, after years of faithful service, gave their professional skill for the relief of those children's children. When under extraordinary circumstances further assistance might be demanded, as in delicate operations requiring peculiar manual dexterity, the family physician has now the opportunity of gaining it by consultation with those connected with special hospitals, a class that did not generally exist fifty years since. One great advantage to be derived from a medical residence in the Pennsylvania Hospital is to be found in the fact that it *is* a *general* hospital, and has no specialties, and that the mind of the youthful resident physician is liberalized and enlarged by studying *every* variety of disease or injury, and nearly *every* possible suggestion of varied treatment eliminated by the active brains and extended experience of the attending physician or surgeon.

Reference has just been made to the fact that much of the subsequent reputation and advancement in practice of those who have been the resident physicians in this hospital originated from their observation and reports of the curious and instructive cases presented in its wards. Among numerous marked examples of this, I cite the labors of Gerhard and Stewardson, two former residents, who pointed out the difference between typhoid and typhus, or of yellow and remittent fevers. Until within a little over fifty years, typhoid fever was *not* recognized in the United States, and it was not until Gerhard, profiting by the instruction of Louis and Chomel in Paris, returned to Philadelphia and became a resident physician in this house, that beginning a series of observations here, and conducting them subsequently in the Blockley Almshouse (which he published in the *American Journal of the Medical Sciences** and the *Philadelphia Medical Examiner* in 1835 to 1839†), our profession recognized and judiciously treated this formidable fever. In referring to this fact in his extended treatise on the practice of medicine, the late Professor George B. Wood states‡ "that the profession is much indebted to Dr. Gerhard for the means of accurately diagnosing typhoid from typhus fever; this being the result of his careful post-mortem examinations, and no less careful observations during life, furnishing a positive proof of an essential difference between the two diseases which Louis himself had previously been disposed to consider identical;" and these differences were subsequently confirmed by other observers. Another resident, F. W. Sargent, showed§ the occasional existence of the "taches rouges" or rose-colored spots in typhus fever all over the body, but mingled with its characteristic petechiæ.

Stewardson, in studying forty-three cases of remittent fever in this house from 1838 to 1841, showed‖ the diagnostic signs of remittent and pernicious intermittent from typhoid; Gerhard having previously claimed that *our* typhoid is not identical with that described by Louis, and that "he had a sufficient number of observations to prove that it is entirely distinct from the autumnal fevers of this country." In 1842 Dr. Reynell Coates, a resident of 1819–1823, now living, reported¶ Barton's bran dressing for compound fractures of the leg,—a dressing not as yet surpassed for such cases by any modern appliance to keep out microbes. Whilst Gerhard was occupied in the medical wards, Kirkbride was engaged and reported in the same journal in 1835** numerous cases of varied interest in the surgical and obstetrical wards, as strangulated congenital inguinal hernia cured by Barton, by making the testis adhere to and fill up the inguinal canal; tardy union in a fracture, cured by friction of the ends of the broken bone; the absorption of the callus from too early exercise after the fracture; injury of the abdomen creating peritonitis; case of rupture of liver and kidney; puerperal phlebitis; temporary loss of vision cured by leeches and a blister to the temple; luxation of a humerus reduced by the application of pulleys for thirty minutes and

* American Journal of the Medical Sciences, No. xxx., p. 320, 1835.
† Philadelphia Medical Examiner, 1838.

‡ Practice of Medicine, vol. i. p. 356, 1852.
§ American Journal of the Medical Sciences, vol. xiv., N. S., p. 532.
‖ American Journal of the Medical Sciences, vol. iii., N. S., p. 277, 1841, 1842.
¶ American Journal of the Medical Sciences, vol. iii., N. S., p. 515, 1842.
** American Journal of the Medical Sciences, vol. iii. p. 342.

free venesection. There was no anæsthetic then, and I have often seen the pulleys thus used and made fast to posts which stood for many years in the rotunda, these being kept there only for use in the reduction of dislocations. Another case he reported was a gunshot wound of the thorax, that was bled f℥xxx, and took one-eighth of a grain of tartarized antimony every hour; was bled on the second day f℥xxx, cupped freely, and purged with salts and tartar emetic; bled on the third day f℥xx, and lived until the seventh day, when the autopsy showed pleurisy and the wad of the pistol and some particles of clothing embedded in the substance of the lung, the irritation of which could not be removed even by such bleedings. I will only mention two other important acts of residents, viz., the suggestion in 1827 by George Fox, then a resident, of his bandage for the treatment of fractured clavicle,*—a dressing that was the only one used for many years,—and the statistical table of Joshua M. Wallace† of all the fractures admitted into this house from 1751 to 1800, which labor he performed in addition to his duty as a resident.

I will not longer tax your patience and keep you from the bright remarks to be made by others who are present, by further details of the varied labors and industry of the residents of this distant period. Most of them have gone to their rest, but the influence of their good deeds remains for the benefit of their successors. Suffice it now to say that I have made but a partial enumeration of the clinical advances made by attending officers and residents and again disseminated throughout the world through the varied classes of pupils that followed them in the rotunda of this house. Here Gerhard so taught auscultation and percussion as made many an excellent auscultator. Here Barton made surgical dressings with a neatness and picturesque effect that induced one young resident to make such constant practice and study as subsequently led to his efforts as a teacher of Minor Surgery and Bandaging, and caused it to become a subject of didactic instruction in every medical college in this country. The young graduate no longer enters the wards of a hospital, as he did, to be mortified at finding that an old surgical nurse can apply a bandage, make a poultice, or introduce a catheter with greater facility and more practical skill than is possessed by him, who holds a diploma creating him a doctor, or learned man. Prior to the year 1855 no such instruction was furnished in any of our colleges. *Now* it is taught everywhere, and there has been recently established in New York City a professorship of this important part of a young surgeon's education.

The credit of establishing this useful instruction may, I distinctly state, be justly assigned to the ideas first received in this house, and subsequently developed under the stimulus of the artistic dressings of a surgeon of the Pennsylvania Hospital, who created for himself a lasting professional monument in the suggestion of the beautiful and judicious dressing for fracture of the jaws known as "Barton's Bandage."

Such, gentlemen, are a few of the reminiscences of a former resident of the Pennsylvania Hospital, that present evidence of its value as a clinical school.

Perhaps some of you will be disposed to regard these recollections as those of an old fogy; but, if so, please remember that he will be extremely gratified to learn that there are those among the residents of the present time who can surpass by talent and industry the labors of those to whom he has alluded,—men who were instructed in their professional duties and sentiments by such teachers as Barton, Randolph, Norris, and Wood; not to overlook such distinguished obstetricians as Hugh L. Hodge and Charles D. Meigs, who often cured neuralgia of the ovaries without spaying the patient.

* Philadelphia Medical Examiner, p. 108, 1838.
† Philadelphia Medical Examiner, p. 108, 1838.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY HOSPITAL.

SERVICE OF D. HAYES AGNEW, M.D., LL.D.,

Professor of Surgery in the University of Pennsylvania, etc.

(Reported by CHARLES BAUM, M.D.)

PAINFUL MUSCULAR SPASM TREATED BY EXCISION OF PORTION OF THE NERVE-TRUNK.

GENTLEMEN,—Some of you will recognize this patient as the man from whom a portion of the right spinal accessory nerve was excised, towards the close of my lecture one week ago, for a nervous affection, the history of which is briefly

as follows. About one year ago he began to experience lateral twitching of the head, with choreic movements of the muscles of the right side of the neck, the sterno-cleido-mastoid and the trapezius being principally involved. This was accompanied by pain, which gradually increased in intensity so that frequent injections of morphine, hypodermically, had been required for relief. For a short time he was in the medical ward of this hospital, under the treatment of Professor H. C. Wood. His head was drawn to the right side. Frequent spasmodic rotary motions of the head occurred, and the pain became almost unendurable. Even slight pressure along the right sterno-cleido-mastoid muscle developed several points of exquisite tenderness and provoked the movements of the head. Being guided by the results of pressure, and not by the position of the head, an incision was made along the posterior border of the right sterno-cleido-mastoid muscle, beginning a little below the tip of the mastoid process of the temporal bone and extending about two and a half inches. After dividing the superficial structures, the posterior border of the muscle was observed: this muscle was then turned towards the median line of the neck, thus exposing the spinal accessory nerve, which principally supplies the sterno-cleido-mastoid and trapezius muscles, and from it about one-half inch of its trunk was excised.

Immediately after the operation all pain and movements ceased, and the patient slept well without an anodyne. Thus far only one twitch of momentary duration has recurred. At present pressure does not produce pain or motion.

In regard to prognosis, I may say if the irritation has been peripheral the result will be permanent; if central in its origin, the symptoms will return when the nerve-extremities unite. Much may also be accomplished by judicious general treatment.

MORBID GROWTH REMOVED FROM THE BLADDER.

The next patient for operation has been sent to the hospital from Washington, District of Columbia, by my friend Dr. Yarrow.

For fifteen years this middle-aged man has been annoyed by frequent micturition, pain in the back and bladder, and for one year by bloody urine. At times the blood has been mixed with the urine, and again at other times has appeared only at the close of micturition. Rest in bed and appropriate treatment have always afforded considerable relief, but any exercise would increase both the pain and flow of blood. Gradually he has grown nervous and anæmic. His urine flows without force, and the stream is frequently interrupted. After complete dilatation of a urethral stricture, several months ago, his symptoms were slightly relieved for a short time. Suspecting some growth within the bladder, Dr. Yarrow introduced an instrument and brought away a fragment of tissue, which proved to be papillomatous when examined under the microscope.

Frequent micturition, as a symptom, may accompany disease in any portion of the genito-urinary tract. The duration of the symptoms without the appearance of œdema, either of the face or the extremities, and the absence of tube-casts in the urine, will exclude Bright's disease of the kidney. As renal surgery recently has made such great strides, every surgeon is on the alert to detect renal disease demanding an operation. In this patient renal colic, which might indicate a calculus, has not occurred. Percussion and palpation of the abdomen do not reveal a displaced kidney or any enlargement from hydronephrosis, pyelonephrosis, or neoplasm. Neither irritative fever, the result of acute inflammations, nor hectic fever, due to the formation of pus, has occurred. There is a small amount of muco-purulent secretion in the urine, but far less than that which occurs in acute and chronic cystitis. In fact, the only constitutional symptoms manifested are those resulting from loss of blood and pain. Pain at the orifice of the urethra and frequently down the thighs is a symptom of vesical calculus; but the sensation in these parts is normal, while the sound does not detect a stone. The prostate body is not tender or swollen, and, with the absence of rational signs, excludes prostatic diseases.

In this case bloody urine has been a prominent symptom. Even a small quantity of blood imparts a smoky or mahogany-brown color to this secretion. In urine containing blood, more or less albumen will always be detected. The blood may escape from the kidneys, ureters, bladder, or urethra.

Blood from a kidney is generally uni-

formly diffused through the urine, because it enters the bladder drop by drop. The causes of kidney-hemorrhage are many, such as changes in the composition of the blood, injuries, inflammation, ulceration, neoplasms, and parasites. Hemorrhage from a ureter is very rare, except from the presence of a calculus, while the coagula formed are long, slender, and worm-like when floated in water. Bleeding from the prostate results from inflammation and hypertrophy, the clots being fusiform; that from the urethra is also generally occasioned by inflammation, stricture, or an impacted foreign body, while the clots are cylindrical in shape. Lastly, the blood may come from the bladder itself, and be the result of inflammation, injury, calculus, parasites, or neoplasms. Coagula from the bladder may resemble coffee-grounds, due to their being partially dissolved in the urine, or they may be flat and irregular in outline. In urethral hemorrhage the first portion of urine voided usually contains blood, while the last portion is clear. The reverse is the rule in vesical calculus, the blood appearing at the close of micturition; for at this stage of the act the contracting bladder grasps the rough calculus, which inflicts minute wounds in the mucous membrane.

In this patient, the clinical history and the physical examination would lead us to suspect some vesical neoplasm.

Morbid growths of the bladder are both benign and malignant. Of the benign growths adenomata are rarely observed, while the fibromata are usually found, especially the villous form, or so-called papilloma. In considering malignant disease, tubercle may be looked for only in conjunction with general tuberculosis; sarcoma is seldom observed, while the epithelial variety of carcinoma is the most common of its class.

I now propose to open the bladder by perineal section and make a digital exploration of its inner surface. The patient is placed in the lithotomy position. As the urine was recently voided, about six fluid-ounces of water containing mercuric chloride (1 to 2000) will be injected into the bladder. A grooved staff will be introduced and kept well against the pubic arch. The incision, about two inches in length, ending three-fourths of an inch above the anus, will be made in the median line, the raphé. After opening the membranous portion of the urethra, the staff is to be removed and a blunt gorget used to dilate the wound, to be followed by the finger. Sometimes the prostate gland is cut and the finger alone used to dilate the parts. If a growth is discovered, a serrated forceps will be used to separate it from the bladder by crushing its attachment.

Making supra-pubic pressure, every portion of the mucous surface of the bladder is brought in contact with my finger. The upper part is perfectly smooth, on the right and left sides low down there is slight thickening of the mucous membrane, and at the base a growth almost sessile in attachment is felt.

[A villous fibroma or papilloma, about the size of a walnut, was removed.]

The after-treatment will consist in perfect quiet, liquid diet, and opium if necessary.

TRANSLATIONS.

HERPES ZOSTER AND PARALYSIS OF MOTOR NERVES.—The combination, as yet not very frequently observed, of herpes zoster (the expression of disease affecting sensory or trophic fibres) with the paralysis of motor nerves can be traced back in one series of cases to a central lesion, in which the process from the trophic nerve-tracts has encroached upon the motor centres, or the reverse.

In another series of cases a peripheral mixed nerve is concerned. Besides these, however, there are still cases which can be referred to neither of these sources, and in which only the most external periphery of the nerve is affected. To this class belong those cases of herpes zoster of the face or the neck which occur in connection with paralysis of the facial nerve. To seven such cases collected by P. Strübing (*Deutsches Archiv für Klin. Med.*, Bd. 37, 1885) from medical literature, he adds one under his own observation. A man 52 years of age was exposed to the action of a cold draught of wind upon his face. A few hours later a neuralgia developed upon the left side of his face, which was followed by herpes, and a few days later by a paralysis of all the facial branches of the left facial nerve and the left chorda tympani.

As regards the question of the connection here between the zoster and the paral-

ysis, it cannot be set down as purely accidental. Reflex paralysis can scarcely be taken into consideration, because the facial paralysis presented the characters throughout of a peripheral and not of a central affection. Quite as unlikely, according to the reporter, could the view of Eulenberg be adopted, that in facial paralysis an eruption of herpes may be induced by irritation of the trophic fibres in the facial nerve (which possibly come originally from the vagus), because one and the same morbid agency would then have to cause irritation of the trophic part of the nerve and paralysis of the motor portion of the nerve. The connection in this and similar cases may be, with the greatest probability, sought for in some inflammatory process extending through the connecting fibres from one nerve to the other, so that a peripheral affection of a sensory nerve (which leads to herpes) will produce a peripheral facial paralysis, and *vice versa*. In other cases the connection may be so clear that one and the same injury (such as exposure to cold) may affect both the trigeminus and the peripheral branches of the facial, and develop herpes zoster and paralysis coincidently.—*Deutsche Medicinische Zeitung*, December.

Hypnotism during Parturition.—In the *Wiener Medizinische Wochenschrift* (No. 45), Dr. E. Pritzel, assistant to Prof. Karl Braun, reports a case of childbirth during hypnotism, probably the first of the kind on record.

The patient, single, 26 years of age, was admitted to the obstetrical wards of Prof. Braun in the eighth month of pregnancy. She had always menstruated regularly from her fourteenth year up to January of last year; since then her health had been good, and she had been entirely free from the nervous manifestations so common during pregnancy.

Upon examination, it was found that she was readily thrown into a hypnotic state by holding a thermometer-bulb before her eyes for a few moments: she became unconscious and insensible to all irritations, while her color, pulse, and pupillary reactions remained unaffected. At the end of a quarter of an hour or half an hour, the patient was aroused by long and continued irritation, shaking the body, blowing upon the cornea, slapping the breast with cold wet cloths, etc. After revival, she declared that she felt well after each experiment, but it was noticed that it was usually followed by a deep, but natural, sleep.

Labor set in October 30, and during the first stage she was restless and unmanageable. Cramps in the limbs and intensity of the pains during the second stage suggested a narcotic or the induction of artificial hypnotism. The latter expedient was adopted, and with entire success. She became unconscious and insensible. It was found that, instead of decreasing in force, the uterine contractions became more energetic, and were aided by the abdominal muscles. While the patient was entirely insensible, it was still noticed that she bent the left forearm as if cramp were present, and there was considerable stiffness in the left leg; the right side of the body was unaffected. Between the pains she lay motionless, as if asleep. A well-developed female child was born, which cried lustily; the placenta was expelled, under the influence of abdominal pressure, in three-quarters of an hour. The patient was wakened by holding ammonia to her nose and shaking her, after unconsciousness lasting an hour and a quarter. The confinement was in every other respect strictly physiological. In two other cases from the same clinic the method was also successful, although to a less marked degree.

Cocaine for Sea-Sickness.—Dr. W. Otto, physician upon a steamer between Bremen and New York, used cocaine hydrochlorate with much satisfaction in the treatment of sea-sickness during last summer. The dose for an adult was one-fourth to one-third of a grain, given for a single dose or three times a day. While these doses were well borne, larger ones did not control the vomiting; the remedy was usually given in ten-per-cent. solution by the mouth. The patients were directed during the first day to maintain a recumbent posture. Vomiting and nausea quickly disappeared, and sleep followed so uniformly that some thought they were taking morphine. The most successful cases were those of pregnant women, who generally suffer extremely with sea-sickness. There were a few cases which remained sea-sick, in spite of the cocaine, until the end of the voyage.—*Berliner Klin. Wochenschrift*, October 26, 1885.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JANUARY 9, 1886.

EDITORIAL.

SOME MEDICAL PROBLEMS OF THE DAY.

MEDICINE is a progressive and therefore an imperfect science, but each step in advance provides a vantage-ground from which new fields may be explored. "Science," as the thought is gracefully expressed by Holmes, "is the topography of ignorance. From a few elevated points we triangulate vast spaces enclosing infinite unknown details." New responsibilities, new problems for solution, as the rule, grow out of each addition to our knowledge of pathology and therapeutics, and it is only exceptionally that some great discovery or new application, like the discovery of anæsthesia, vaccination, or the ligation of arteries, appears upon the scene to revolutionize medical practice.

Upon reviewing the work of last year in the medical world, we observe some errors committed, but more corrected, and many contributions to the common fund of knowledge which are apparently both new and true; while, if the assertion of Pasteur that the cure for hydrophobia has been definitely found can be accepted fully and literally, the year 1885 has been marked by at least one great medical discovery.

In general medicine, the study of bacteriology has lately led to improvements in technique rather than to new achievements in the field of the relation of microbes to morbid processes. Indeed, attention now seems to be particularly directed towards the peculiar condition of protoplasm in the living human body by which it is rendered a congenial host for the reception and cultivation of disease-germs. The question now is, What is the *quid intus* which must be present in the organism in order to produce a favorable soil for the development of germs? In what does vulnerability or susceptibility consist, how does it arise, and how may it be destroyed? What relation does such special susceptibility bear to the clinical picture which we call disease? Representing the morbid combination by ten units, will the susceptibility represent two or three and the germ eight or seven, or *vice versa*? or, in some cases, may the predisposition in reality be the disease, and the germ (so called) an incident or accident in its course? These problems are now before the profession for solution.

The problem of reducing or destroying susceptibility in the human organism by inoculation with a mitigated virus—so successful in variola—has not made much progress, Pasteur's experiments excepted. Ferran's protective inoculations against cholera in Spain were successful, it is believed, in the primary object for which they were practised (*i.e.*, providing for Dr. Ferran's family), but there is no reliable evidence to show that they possessed any scientific value whatever; on the contrary, they have caused erysipelas, septicæmia, ulcerations requiring amputation of limbs, and, in a few instances, death. The exposure of Ferran by the French Commission has thrown some discredit upon protective inoculation for epidemic cholera, but the prophylactic inoculations for yellow fever have been continued, and the reports from Freire and Carmona positively claim highly successful results.

The announcement of Pasteur to the French Academy last October that he had solved the problem of the prevention of hydrophobia by means of hypodermic injections of morbid material has attracted much attention to the subject, and, owing to the highly-flavored accounts published in the daily papers, many persons who have been bitten by dogs believed to be mad have been sent to him to be treated by his method. It is stated that he has in view the

establishment of an institution in Paris for the treatment of such cases. Similar institutions have been also projected in London, New York, St. Louis, and elsewhere.

With regard to this matter, it is well to bear in mind that rabies canina is a rare disease in this country, and that only comparatively few persons annually are bitten by dogs that are really mad. Of those bitten, authorities state that fully fifty per cent. will escape having the disease, even without any treatment whatever; in the others, immediate and thorough cauterization of the wound is pronounced an almost infallible means of preventing the future development of the disease. When the precaution of thorough cauterization has been taken, especially if combined with excision, as recommended by Gross, it is believed that the danger to be apprehended from subsequent hydrophobia is slight, and the necessity for the establishment of institutions for Pasteurization, therefore, infinitely small. Moreover, one of his patients, the papers state, has since died with hydrophobia, although the inoculation had been practised. Here the failure was attributed to the lapse of time between the bite and the hypodermic puncture,—thirty-five days having been rather arbitrarily set as the limit beyond which the treatment is useless. Before this treatment is generally adopted, the question must be considered, What is the danger from the inoculations themselves? Erysipelas and septicæmia may be not too heavy a price to pay for immunity from such a dread and fatal disease, but is there any possibility of the inoculation of the *materies morbi* giving rise to the very disease which the bitten one is most anxious to avoid? We cannot help regarding this new development of isopathy with some mistrust, at least until it rests upon a more secure foundation. In the mean time, we can but deprecate the evident popular craze upon the subject, which originated in premature and partial accounts in the public press.

Turning to subjects more directly concerned with pathology, we find that views advanced last year by Dr. Ord, in his presidential address before the London Medical Society, on the origin of pyrexia, are new and important. During the building up of complex tissues there is a loss of sensible heat; and it was held by Dr. Ord that, this constructive process being disturbed in fever, the heat is not locked up, as it should be, but continues active, and becomes added to the heat produced by excessive tissue-combustion. Fever-heat, then, is the joint result of interference, through disturbed innervation, both in the constructive and in the destructive metabolic processes. That the undue liberation of heat at the surface of the body is dependent upon some disorder of the nerve-centres has not been definitely established, and, for the present at least, we must regard fever as a disorder of protoplasm.

In surgery, among the many topics which might be considered, we may mention, as a positive evidence of progress, the publication by Lawson Tait of one hundred and twelve consecutive cases of laparotomy for operation or exploration, without a single death. The transplantation of the eye of a rabbit or a dog into a man's orbit for cosmetic purposes has been performed five times during the year, according to M. Terrier, who reported them to the French Academy of Medicine. In but one case, however, was the experiment successful, and that was performed by an American, Dr. Bradford, of Boston, who introduced a rabbit's eye into the orbit of a sailor thirty-five years of age, upon whom enucleation of the eye had just been practised.

Brown-Séquard announced to the Academy of Sciences that he had succeeded in causing general analgesia in man by introducing carbonic acid gas towards the end of inspiration, so as to act directly upon the larynx. The inhalations, if kept up for

twenty or more minutes, he stated, would produce analgesia and relief from pains, however induced, extending to forty or even to forty-eight hours. In connection with this, we think it is important to call attention to the employment of hypnotism as a substitute for anæsthetics in obstetrics, as in a case reported in another column.

Dujardin-Beaumetz adds to the list a new hypnotic, which, in recognition of its decided effects, he proposes to call "hypnone." It was discovered by Dr. Bardet and himself, and belongs to the aromatic series; it is a mixed acetone or aceto-phenone (phenyl-methyl-acetone). It is said to possess decided hypnotic properties in doses of from two to four drops to adult patients. It is not miscible with water, but may be given in capsules with glycerin. Injected hypodermically, it causes insensibility, followed by coma and death.

The preparations for the International Medical Congress to be held in Washington in 1887 have made decided progress. Within the last few months an independent executive committee was formed, and the necessary preliminary arrangements have been begun in a manner to inspire confidence in the present management of the affairs of the Congress, the prospects for which are decidedly better than they were one year ago.

The interest in sanitary matters and public health in the public mind has been maintained during the past year, and shows a healthy growth. In accomplishing this desirable end the American Public Health Association and the various State and County Medical Societies have contributed to a very great degree. Among the indications of progress may be mentioned the establishment of a State Board of Health in Pennsylvania, chiefly through the persistent efforts of the State Medical Society. It is hoped that public attention will now be directed to the great need of a State Board of Medical Examiners, and also of a change in our coroner system.

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NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

FOR the time being the country is absorbed in an election-struggle, and country doctors complain that they are doing little or nothing: betwixt the election and the depressed condition of agriculture, people do not want medical attendance. The medical candidates have met with rival fortune. Dr. Balthazar Foster, of Birmingham, has been successful as the Liberal candidate for Chester; Dr. Danford Thomas has fallen after a game struggle for Islington; Sir W. Guyer Hunter gained a metropolitan seat; Dr. Watney failed to secure Deptford; and Dr. Alfred Carpenter, who seemed a strong candidate for one of the divisions of Surrey, was defeated; while Prof. Erichsen is waiting the reply of the graduates of Edinburgh and St. Andrew's Universities, as did Dr. Gordon Hogg, in vain, for the opinion of the electors of Ealing in West Middlesex. The editor of the *British Medical Journal* has not succeeded in winning over the Radicals in the East End, and had a bad fall, finding comparatively few supporters. The danger of an even balance of parties, so as to put the Irish party into power and prevent all legislation until they were disposed of in some way, has largely passed away. Even for the brief time when it was impending, a curious trait in the Anglo-Saxon character manifested itself,—viz., their utter intolerance of any attempt on the part of an inferior race to coerce them. The Anglo-Saxon has been a comparatively merciful ruler towards subject races so long as they recognized his superiority and authority. But any attempt to cast off his yoke has been met by a stern, uncompromising resistance and a further fastening of the fetters. This was markedly seen in the behavior of the English at the Indian mutiny. It was stamped out effectually and promptly. During the past few days, when it seemed that Mr. Parnell, "the uncrowned king," was going to be master of the situation, the same spirit showed itself everywhere, and every one was talking of what must be done in order that the legislative arm of the nation should not be paralyzed; for, with a neat balance of power, neither side could rule except at Mr. Parnell's will. One thing was certain with all, and that was that Ireland should not rule England. When King Charles the First, in sore straits, intrigued to bring over so many Irish kerns to ravage England, the feeling manifested was strong and led to further alienation of the people from their king. So it was again. And even in the strife of parties and in the midst of a keen political contest, unanimity prevailed on this topic, and by common consent men of all parties were agreed to take measures against such a catastrophe. How-

ever, this danger, lately seeming so threatening, is already a matter of the past.

Within the medical profession, the two matters of gossip and speculation are: first, the matter of a university degree for London medical students, which is becoming a burning question; and, secondly, what is going to be done to that unworthy member of our profession who figured in the trial of which something was said in my last letter. As to the medical degree, a variety of propositions seem to be in the air. Of the great basal matter, the desirability of a degree on terms more reasonable than the existing "M.D. London," all concerned agree,—unless it be some of the present graduates of the London University. To put it broadly, it would appear that the position is somewhat like this: (1) a union of the two Royal colleges, which are non-teaching corporations and merely examining bodies; and (2) the formation of a teaching university. A third proposition has just emanated from University College in an inchoate form, the drift of which seems to be to convert University College into a teaching university. The exponent of this last device was Professor Ray Lankester, F.R.S., to whom has just been awarded the Royal medal of the Royal Society, in recognition of his important researches for a number of years in embryology and other biological and zoological subjects. The matter is being taken up in earnest, and there is every prospect that a solution will sooner or later be found; but it cannot be expected that the resultant decision will be acceptable to all parties. The rivalries and jealousies of the numerous schools, the lethargy of the two great corporations, are two great stumbling-blocks in the way of any and every conclusion. The agitation will have the effect of adding to the growing sense among the profession at large that the interests of students and of practitioners are, in the present state of matters (as in the past), utterly subordinated to those of the colleges.

The other is a painful matter, as affecting the position of the profession morally and socially. A medical man is largely a privileged man, who enters into the very *sanctum sanctorum* of families. The greater the confidence reposed in him, the greater should be his sense of responsibility and his care not to presume upon nor abuse that confidence. In my last I gave some account of the curious proceedings of an evening metropolitan newspaper in reference to the abuse of young girls. The judge's summing up ran closely upon the lines laid down in that letter, and the eccentric editor has now for some time been a prisoner in one of Her Majesty's jails. The judge made some strong comments upon the conduct of the physician who consented to take part in such questionable proceedings. So strong were they that all wondered what steps would be taken in the matter by the ruling powers of the medical world. The judge said,—

"Dr. Heywood Smith thought fit to examine this child after subjecting her to chloroform. Dr. Smith had been told that the child had been bought for immoral purposes; that an examination had been made by Madam Mowrey; that she had been taken to a brothel; and there was no doubt he had been told everything that had happened. Notwithstanding this, and having, I presume, the knowledge that neither Mr. Booth nor Mr. Stead had any right to deal with the child, he had the child sent to No. 27 Nottingham Place; went there himself at between two and three o'clock in the morning; had chloroform administered; and then examined the child. I do not hesitate to say that anything more discreditable to a medical man I cannot imagine; and I grieve to think that anybody belonging to that great profession to which Dr. Heywood Smith belonged should do such discredit to it. I say that advisedly, after a careful consideration of the circumstances."

The midwife who examined the girl without administering chloroform got six months' imprisonment. What happened to the other individual who also indecently assaulted the poor child? The Council of the British Gynæcological Society accepted his resignation of the post of Honorary Secretary, while admitting the valuable services he had rendered to it. The only other step was this: at a recent meeting of the General Medical Council, "in reply to a question addressed him on Thursday by Dr. I. H. Watson, the President of the Council said the Royal College of Physicians of London had under consideration the conduct of a registered medical practitioner, a member of the College, whose professional conduct had recently been severely censured by one of the English judges, and that it would rest with the Branch Council to decide what action should be taken in reference to the case, after the decision of the College of Physicians has transpired." (*Medical Press and Circular.*)

A fortnight has now elapsed, and the College of Physicians has not yet come to any conclusion: so that the Branch Council are still waiting patiently the judgment which is to give direction to their own action. Here the matter stands; and yet the College proposes to guarantee the conduct of its Fellows and members. There are two or three weeks' washing of dirty linen on hand already in Pall Mall. There stand over several instances of unbrotherly conduct on the part of its Fellows towards each other, and one of members towards each other; but in these cases there have been no opinions expressed by a judge to guide the College to a conclusion. Now they are face to face with something more than a scandal, and the public, as well as the profession, await their verdict. That a

body which has studiously practised shuffling as its line of conduct, and has evaded every occasion for a decision, while its own procedures have been marked by what may be called clandestineness, should feel very uncomfortable when called upon for decision under the fierce light of public interest in the question, is conceivable enough. Where infirmity of purpose and procrastination rule, it is hard to be put to a decisive conclusion before an impatient public. One can understand, if one cannot sympathize with, their dismay and hesitation. Here is the Branch Council of the medical parliament and judicial bench waiting upon their action, and evasion is impossible,—at least, one would think so; but, however, time will tell. It will be a novel spectacle to see the Royal College of Physicians of London taking up a distinct attitude on such a question; and its decision will come with much the same sense of strangeness as we would experience were an eclipse of the sun or moon to occur which has not been predicted.

In a paper read before the Medical Society of London recently, the writer expounded his views of gout. He pointed to the fact that, when kidneys first appear in the animal world, the form of excretion as regards nitrogenized waste is uric acid. Uric acid is found with animals with a three-chambered heart and a solid urine,—viz., birds and reptiles. When the mammalia appear, we find a four-chambered heart and a fluid urine, with the soluble urea as the form of nitrogenized excretion. Certainly a trace of uric acid remains in the urine of many mammals. When the human liver becomes impaired, depraved, or degraded, it fails in the (practically) complete conversion of nitrogenized waste into urea, and falls back upon or reverts to the primitive urinary product of the lower animals,—viz., uric acid. Gout, then, is (in its broadest sense) liver-reversion,—the formation of primitive urinary products by a mammalian liver. This definition throws a ray of luminous light upon the genesis of gout. Of the causal associations of gout and their relations to good living (in the present or in the past) the world has long been agreed. One man inherits gout, and has to practise the greatest self-denial in meat and drink throughout life in order to ward off the visits of his hereditary foe. But then it will be found, on investigation, that the individual is the product of a family which for generations has kept a table, and that a long-sustained struggle with an excess of nitrogenized food, lasting over several lives, has impaired the functional efficiency of the liver. On the other hand, the humbly-born alderman, whose liver is in all its integrity, can eat and drink to old age without making the acquaintance of the gout, sometimes, indeed, escaping himself scot-free, to hand down a tendency to uric-acid formation—along with his savings—to his descendants. This liver-reversion is intelligible, and helps us practically to deal with gout. It is quite clear that the first step is to reduce the demand upon the inefficient viscus. Physiological rest is of the greatest utility in enabling an impaired organ to regain its waning capacity. Consequently, it is well to cut down the amount of albuminoids in the dietary for a beginning. About that step there can exist no two opinions. Then as to the utility of uric-acid solvents, as lithia and potash, there is not much doubt. Dr. Garrod put us a good step forward when he showed that the comparatively insoluble uric acid and urates were readily soluble in the presence of these two bases; and in many cases, no doubt, it is a convenient method of dealing with uric acid so to wash it out of the system, daily doses of uric-acid solvents, well diluted, being taken to meet the daily formation of the uric acid. This is a great step forward, doubtless; but experience is beginning to tell us in unmistakable accents that something more is possible and practicable in addition to this. The liver is lowered as to its functional vigor, and insoluble uric acid is being formed rather than the soluble urea. That is one side-piece of the ladder of hypothesis. The other is that we are in possession of certain agents which are hepatic stimulants, and which have a special effect upon the liver. The group consists of sundry vegetables, of which the best-known are taraxacum, ipecacuanha, rhubarb, aloes, euonymin, iridin, and baptisin. Not only in true bilious conditions (where their value is generally conceded), but in lithæmic or gouty states, these agents possess a useful action. By their influence upon the liver they seem to have an elevating effect upon the processes by which waste and surplus nitrogenized matter are sent downward as products cast out of the body as urinary excreta. For some years now it has been the practice of the writer in cases of liver-inadequacy (whether cholæmia or lithæmia was the resultant malady) to combine these special hepatic stimuli with a general tonic like strychnia. Very satisfactory results have accrued from such a combination, especially where it is persisted in for some time. We all know how difficult it is to overcome a bad habit; and the organic viscera seem to acquire bad habits, as seen in chronic dyspepsia, the formation of renal calculi, recurrent liver-disturbances of the bilious nature, recurrent abortions in certain uteri, and the return of gouty states. Time, then, is an essential element in the treatment of such a vicious habit as the tendency to form uric acid. But by physiological rest as regards the metabolism of albuminoids—*i.e.*, lessened work and increased functional capacity, the effect of the hepatic stimuli—this morbid tendency can be to a great extent overcome. In one case which has been very carefully watched, where there

was a decided tendency to the formation of uric acid and a chronic gouty condition, and, after standing twenty-four hours, the pale urine had a pinkish hue, with a distinct deposit of cayenne, the change under the plan advocated above has been very marked. The urine is less in bulk, is of normal hue and odor when passed, and, on standing, no uric-acid deposit is found; while at the same time the general condition is very satisfactory. "One swallow does not make a summer," and, if the case stood alone and unsupported, it would possess but little clinical value. But when it is borne out by a series of allied cases it has a measurable value.

It is not perhaps very generally known that persons of thin flank do not bear alkalies well. In spare gouty persons (as indeed in spare bilious persons) alkalies are not well borne, as a rule. In such cases it is well to resort to hepatic stimuli rather than to uric-acid solvents: the alkaline lithia and potash. Even some stout and stalwart persons cannot tolerate potash. Lithia is less depressant than potash, but still it is too lowering for some persons. In such cases the line advocated above will give more satisfactory results. Phosphate of soda is an hepatic stimulant, and, where a mineral salt is indicated, is often most useful in liver-disturbances. In conditions of lithæmia and cholæmia it is of service, and it will often clear away the remains of jaundice in a satisfactory manner.

Therapeutic advances of recent years have taught us how we can act upon the nerve-centres of the heart when that organ is acting inefficiently. More recently we have discovered direct stimuli to the respiratory centres useful when the respiration is embarrassed. And now, it seems, we stand upon the threshold of acquaintance with remedial agents which can raise the tone of the liver when hepatic inadequacy is present and the system is suffering from the presence of toxic matters formed within itself.

J. MILNER FOTHERGILL, M.D.

PROCEEDINGS OF SOCIETIES.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held December 17, 1885, A. JACOBI, M.D., President, in the chair.

VAGINAL AND VULVAR ENTEROCELE.

Dr. T. GAILLARD THOMAS read a paper with this title, and said there were five varieties of hernia into the vagina and vulva: 1, cystocele, or hernia of the bladder; 2, rectocele, or hernia of the anterior wall of the rectum; 3, vaginal enterocele, or descent of a portion of the small intestine into the vagina; 4, pudendal enterocele, or descent of the small intestine into the labium majus, one or both sides; 5, perineal enterocele, or descent of the small intestine by protrusion through the perineum.

There might be exceptional cases going to form other varieties. Hernia of the bladder and anterior wall of the rectum were passed by with mere mention, and the author limited his remarks principally to descent of the intestine through the pelvic roof, with protrusion into the labium majus, vagina, or through the perineum. These forms of hernia were very generally ignored in systematic works on gynæcology, and indeed had received little attention in periodical literature. This was the more to be regretted because the condition, although a rare one, was very liable to lead to an erroneous diagnosis, and consequently to injurious treatment. While the cases were rare, they had been recognized a long time since, and a more graphic description of vaginal enterocele could not be given than that which had been given by Sir Astley Cooper in 1804.

Vaginal enterocele consisted in a descent of the intestines into the pelvic cavity either in front of or posterior to the broad ligament on one side. The descent was a little oblique, and most frequently occurred posteriorly. Usually the intestines alone descended into the protrusion, but sometimes they were accompanied by the omentum. Usually it was the small intestine. In vaginal hernia the parts were—first, the vaginal wall; second, the peritoneum; third, the intestine. The tumor might occur during labor and obstruct the progress of the fœtal head, and the obstetrician was liable hastily to infer that there was an ovarian or parovarian cyst with a long pedicle pushing down into the pelvis, and to plunge a trocar into it. If it occurred in a non-parturient woman he might undertake to remove the tumor, and find, to his horror, that he had cut away a portion of intestine. The condition might be brought on by the strains of labor, or by falls, or violent effort, etc. Strangulation seldom occurred. The symptoms consisted of difficulty in locomotion, pelvic tenesmus, dragging-down and colicky pains, tendency to constipation, and, in time, perhaps vomiting; if during parturition, there would be obstructed labor.

The physical signs of vaginal enterocele were a supple, soft, yielding tumor, decreasing on pressure, giving a sensation of gurgling to the finger if not heard by the ear, increasing on coughing and straining, yielding to pressure, and very generally reducible if the patient be placed in the knee-chest position and taxis practised.

Vaginal enterocele might be confounded with prolapsus of the vagina, uterus, bladder, or rectum, or a combination of these displacements; with vaginal cyst, parovarian cyst, or ovarian cyst, fibrous tumor low down in the pelvis, cold pelvic abscess, or marked

cases of tubal dropsy. But most cases presented striking features, and if one's attention were directed to the possible nature of the condition a mistake in diagnosis would not be likely to take place. The hernial tumors might show themselves in one of two ways: first, by brusque and sudden development, marked by alarming and decided symptoms; second, by slow development, with uneventful symptoms, the mere mechanical effects of the tumor finally attracting the attention of the patient. Rarely the cause of vaginal enterocele was a form of traumatism, causing the wall to give way.

In one case of vaginal enterocele, which Dr. Thomas saw in consultation with two physicians, one of the physicians, in order fully to satisfy himself of the correctness of the diagnosis, insisted upon introducing his entire hand into the vagina. In doing so he ruptured the vaginal wall at the site of the tumor. Dr. Thomas sewed up the rent, and the patient narrowly escaped death from acute peritonitis, and the physician was sued for malpractice. Another case had been recorded in which rupture of the vaginal wall of the tumor followed the use of tents. The rent was closed by silver suture, and the patient recovered.

There were two forms of pudendocele,—one being internal, commencing as in vaginal enterocele, but finally forming a protrusion of the labium, and the other the external or inguinal variety. The symptoms, which were almost pathognomonic of vulvar enterocele, were: 1, an airy feeling upon palpation; 2, gurgling upon replacement; 3, diminished tension in the dorsal decubitus; 4, diminution in bulk upon taxis; 5, resonance on percussion; 6, impulse transmitted to the hand on coughing; 7, intestinal pain, colicky in character.

Perineal hernia might affect either male or female. In the female it consisted in a descent of the intestine between the vagina and the rectum, the advance being posterior to the broad ligament, and continuing until the perineal muscles were forced apart and the gut, with its peritoneal envelope, was arrested by the skin. The sac lay between the vagina and the rectum.

All of these varieties of hernia were usually readily reduced, the reduction being greatly facilitated by the knee-chest position. In some rare cases strangulation occurred. Here the surgeon should cautiously open the sac and cut the constricting band by passing up a probe-pointed bistoury.

Dr. Thomas then related a remarkable case of extreme vaginal hernia which illustrated some unusual features.

The woman was 39 years of age. About six years ago she had noticed a lump in the vulva, and began to suffer from frequent micturition, pains in the back, nervousness, etc. The tumor gradually increased in size until it reached the middle of the right thigh. The patient became greatly emaciated and suffered extremely from the symptoms enumerated, and she was willing to undergo any treatment with a hope of obtaining relief. When by taxis she restored the tumor to the pelvic cavity, which could easily be done, she experienced such great difficulty in emptying the bladder and rectum that she was compelled to force it voluntarily out again. The tumor was of pinkish hue, and had the appearance of a huge cystocele. But this superficial impression was erroneous. After examining the tumor more carefully, and reducing it by taxis, Dr. Thomas concluded that it was without doubt a hernia of the intestine. It was utterly impossible to retain the tumor in its reduced position, for two reasons: first, because the pressure which it exerted against the bladder and rectum when within the body interfered with the function of these viscera so as to render the patient very uncomfortable; second, because of the great weight of the mass. Yet the condition of the patient urgently called for relief. Under these circumstances he suggested the following operation, which was eagerly accepted by the patient and her friends: to perform laparotomy; to have an assistant keep the tumor reduced by one hand in the vagina; empty the sac of its contents, seize it at its most dependent part, drag it up into the abdominal wound, fasten it there by suture, and sustain the heavy sac by two knitting-needles passed through it and lying flat upon the abdomen. Dr. Emmet and Dr. Bozeman confirmed the diagnosis and approved of the proposed operation. On opening the abdomen, his assistant pushed back the tumor, and the operator was surprised to find in the pelvis a soft fibrous tumor, which had been pushed up from below, on a level with the symphysis pubis, very movable, covered by peritoneum, disconnected with the uterus, and on careful examination proving to have no connection whatever with the bladder. The nature of the tumor could not be determined, but he decided to remove it. The sac was drained by a glass tube, and was fastened into the abdominal wound as had been proposed. The patient made a good recovery. It was now more than five weeks since the operation, and there had been no return of the hernia. Dr. Thomas, however, expressed some apprehensions as to the future. He thought the explanation of the case was that originally this very movable tumor entered the pelvic cavity behind the broad ligament on the right side, and with the weight of the intestines it pressed down upon the vagina, which it inverted. The contents of the sac were, then, the tumor and intestine. The microscopical examination was made by Dr. H. C. Coe, who said the structure was like that of an ordinary fibro-muscular tumor or a fibro-myoma of the uterus. It was not the bladder; it was not an ovarian cyst; it was not composed, at least

to any great extent, of inflammatory tissues. He submitted two theories as to the nature of the growth: first, that it was a local hypertrophy of the pelvic connective tissue; second, that it was a subperitoneal uterine fibroid which had become œdematous. He inclined to the former view, as did also Dr. Thomas.

Regarding treatment, there was but one variety of pudendal hernia—namely, inguinal—for which much could be done by mechanical appliances. Other varieties of hernia under consideration could only to a limited degree be relieved by such means. But it appeared to the author that the plan which he had partially carried out in the case reported promised more than any other yet brought forward.

Proposed changes in the constitution and by-laws were then read, and will be acted upon at the next meeting.

PHILADELPHIA ACADEMY OF SURGERY.

AT a stated meeting of the Philadelphia Academy of Surgery, held December 7, 1885, the President, Dr. D. Hayes Agnew, in the chair, several cases were reported, as follows:

CRUSH OF PELVIS AND COMPOUND FRACTURE OF LEG.

Dr. Nancrede: I desire to relate a case which is of considerable interest to myself and may be of some interest to the Academy. It is that of a man who was run over by a loaded wagon, one wheel traversing just above the crest of the ilium and running across the ramus of the left pubic bone. In some way the left foot became entangled, and he suffered from a compound comminuted fracture of both bones of the leg. There was simply a puncture of the soft parts, probably produced by one of the fragments. It was a compound fracture which would not *per se* have demanded amputation.

When I saw the man, three hours after the accident, he was suffering profoundly from shock. There was then a reasonable-sized effusion of blood just above the brim of the pelvis, extending into the scrotum and penis, but not involving the thigh. Scarpa's triangle was distinct and depressed. It seemed probable that the external iliac artery had received a severe injury. The limb was icy cold from Poupart's ligament all the way down. The arteries could not be detected anywhere below the brim of the pelvis. There was no hemorrhage from the compound fracture. The man was at this time in such a condition of shock that it was manifest that nothing could be done. He gave me the impression that he was suffering from concealed hemorrhage. My colleagues were, fortunately, in the hospital, and we examined him and came to the conclusion that the vessel was injured, but the man was not in a condition at the time for any operation, and that we would wait until reaction occurred. This did occur, and the temperature went up to 99°. I neglected to say that at the time of the examination the hæmatoma did not pulsate. When reaction supervened, bleeding again commenced, and when I saw the man the following day the whole thigh was tensely filled with blood. The effusion of blood beneath the peritoneum had extended from the median line about two inches above the pubes and the crest of the ilium and to within about two inches of the false ribs. The point of interest is that the limb had regained its temperature down to within two inches of the knee-joint. The hemorrhage was increasing, and I sent a note to my colleagues. While I waited, the subcutaneous hemorrhage seemed to ascend about half an inch.

The question was, What was to be done? The man was not in a condition for a hip-joint amputation, and the compound fracture was not one which under other circumstances would have demanded amputation. The collateral circulation had established itself to within two inches of the knee-joint. As there was nothing else to be done, it seemed to me that if the collateral circulation could establish itself under such adverse circumstances, it was possible that, if we secured the bleeding vessel and relieved the pressure upon the collateral circulation, it would doubtless maintain itself as far as it had gone, and might extend further and give an opportunity for secondary amputation.

I cut down, first, for the common femoral, and opened up a mass of blood and clot, and at once struck the artery, empty and contracted to two-thirds its size, but no wound was discovered. I next introduced my finger under Poupart's ligament into an enormous cavity. I found the iliac artery consisting for about half an inch of little but its stretched cellular coat, and I thought that I felt a rent in it. I passed a ligature, tying it above and below. It was found that one of the branches, I think the deep circumflex, had been torn off close to the iliac. I did not make the post-mortem, and am not quite positive as to the artery. The hemorrhage from this had ceased before I did the operation, for there was a clot in this branch and in the vessel. The vein appeared to be bleeding when I lifted it at the time. This I also tied. There was no more hemorrhage after the operation.

Where did the bleeding come from? The internal and middle coats of the external iliac were ruptured. The hemorrhage must have come from the arterial branch torn off, or the circulation must have been carried on through the injured external iliac, and come from the vein below. The fact that the collateral circulation set itself up so far is also interesting.

The further history of the case is that the man rallied and the foot seemed to me to get

warmer. The thigh retained its temperature, but the man gradually sank, and died about eighteen or nineteen hours later. The post-mortem showed that there had been no further hemorrhage. The external iliac had been tied three-fourths of an inch above Poupart's ligament. There was no fracture of the pelvis. Possibly if the vessel had been tied at first, the man might have rallied and the collateral circulation have been established in the limb below.

OPERATION FOR URINARY INCONTINENCE.

The President read the report of a case upon which he had operated for the relief of incontinence of urine:

A lady, who seven years ago had submitted to the operation of cystotomy for the relief of cystitis, consulted me some time since as to the propriety of closing the vesico-vaginal opening, as the constant flow of urine had become intolerable. The fistula was closed in the usual manner, by freshening its edges and uniting them together with silver sutures. It was found, however, that the urine still escaped involuntarily, and I supposed that the operation had failed at some point which had been overlooked. The parts were exposed, the bladder injected with milk and water, and found to be tight. The trouble arose from atrophic degeneration of the sphincter vesicæ, the result doubtless of long disease. To relieve this I proposed and executed the following operation. The mucous membrane was freshened at the neck of the bladder and for three-quarters of an inch forward, extending three-eighths of an inch on either side of the canal. After the denudation sutures were passed across the wound (not deeper than the submucous tissue), and the parts drawn together in a corrugated manner and secured by shot-clamps. The sutures were removed on the sixth day. No further trouble was experienced, and the patient remained perfectly dry.

A WANDERING STYLE.

Dr. Thomas G. Morton reported the following case: A lady came into my office a few days since, and stated that thirteen years since I had introduced, in her case, a gold style for a fistula of the tear-duct upon the left side. A week after the operation she stated that the head of the instrument, which was a small one, had disappeared. The fistule closed, and she had no further trouble until about two years ago, when she suffered considerably from facial neuralgia upon the left side. About this time she observed a pimple on the left side of the roof of the mouth, and soon afterwards this became an ulcer, and a hard, black substance like the end of a pencil projected and filled up the ulcerated part. This mass could be pushed up, but immediately reappeared when the pressure was removed.

An examination showed that the presenting hard body was the end of the style, which was readily removed with the aid of a dressing-forceps. The greater part of the style was thickly encrusted with calcareous deposit, which considerably increased its size. This, in addition to the head of the style, prevented its escape.

This is the only instance which has come under my notice where a style has worked its way through the roof of the mouth.

(To be continued.)

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, DECEMBER 10, 1885.

The President, J. C. WILSON, M.D., in the chair.

(Continued from page 258.)

DR. F. A. DERCUM presented the

BRAIN OF AN EPILEPTIC IMBECILE.

The dura was somewhat thickened, but not adherent. On puncturing it, five ounces of cerebro-spinal fluid escaped. The pia was adherent in a few places. The ependyma was reddened and injected, and the velum interpositum thickened. The convolutions were for the most part small, and the sulci shallow. The frontal convolutions were little more than outlined, and on the right the island of Reil was freely exposed. On each side the fissure of Rolando ran directly into the Sylvian. In the occipital lobes were the points of greatest interest. These lobes were remarkable for the smoothness of their surface. On the lateral surface only a shallow groove corresponded with the normal longitudinal occipital fissure. On the mesial surface the calcarine fissure was short and extended directly into the hippocampal, the posterior end bifurcated on the right, simple on the left. In the right hemisphere the parieto-occipital curved forward and ran for a short distance parallel with the fissure of the corpus callosum, then abruptly turned upward, terminating upon the lateral surface. A comparatively well-marked *pli de passage* was present, but made an obtuse angle of one hundred and twenty degrees with the calcarine. On the left the parieto-occipital made a right angle with the calcarine, and ran perpendicularly upward to end in a bifurcation on the lateral surface. On this side a large superior *pli de passage* was found. Microscopic examination of the paracentral lobule showed the cells in the upper part of the cortex, though numerous, rounded or irregular; in the lower part the cells were comparatively few; pyramidal cells were the exception, and only one or two of the usual large cells

were found. The walls of the vessels showed decided change.

The reporter remarked that the brain could only suggest atavism in a remote degree, being essentially an arrest of development, which was most marked in the frontal and occipital regions. Further, the condition of the pia and the lateral ventricles, with the excess of cerebro-spinal fluid, points to a brain essentially diseased.

Dr. FORMAD presented the

BRAIN OF AN IMBECILE.

As a young child the patient had been normal, the imbecility coming on after a sunstroke. The brain was markedly asymmetrical, the left cerebrum twice as large as the right, with an entire difference in the distribution of the convolutions. On the contrary, the right lobe of the cerebellum was twice the size of the left. The head was shaped to suit the brain.

Dr. DERCUM said that from the fact of the brain fitting so well into the skull, it would seem as though the condition might have been congenital. Still, in view of the traumatism and the age at which the symptoms commenced, he thought the condition rather one of atrophy. Not only were the primary convolutions perfect, but also the secondary: if it had been congenital, the secondary convolutions would most likely be absent, and the primary poorly formed.

Also, an

ANOMALOUS BRAIN,

from a boy, æt. 9 years. He had been healthy and of fully average ability. Death resulted from an accident. There is an entire absence of falx cerebri, the two hemispheres being connected by a bridge of brain-substance. There is nothing else abnormal.

Dr. FORMAD then continued his remarks on

THE CHARACTERISTIC LESIONS OF CHRONIC ALCOHOLISM,

and presented illustrative specimens.

Dr. J. P. STRITTMATER presented a

PRIMARY SARCOMA OF THE KIDNEY,

occurring in a child 5 years old. There was absence of a history of heredity. Enlargement of the abdomen was noticed soon after a fall, and progressed rapidly. The tumor—hard, rounded, and painless—extended from the crest of the ilium to the margin of the ribs on the left, with nodules extending to the median line. Towards the end the lower extremities became œdematous and the superficial abdominal veins enlarged. She died four months after the first symptoms. Post mortem, the left kidney was found enlarged to the size of a fœtal head, with a complete destruction of any normal structure. There were secondary deposits in the peritoneum, omentum, liver, spleen, and right lung.

Dr. FORMAD said he had examined the growth and found it to be a congenital rhabdomyoma, which had undergone sarcomatous change. Primary renal sarcomata rarely give metastasis, and he accounted for the numerous secondary growths in this case by the fact that the sarcomatous change was secondary to the rhabdo-myoma.

Dr. T. S. K. MORTON presented specimens from a case of

PNEUMONIA WITH MENINGITIS.

The patient, when first seen, five days after the initial symptoms, was profoundly comatose and rigid, with finely-contracted pupils and the physical signs of pneumonia. She died in a few hours, with no change in the symptoms. The dura was in spots slightly adherent. Extending the whole length of the longitudinal sinus was a firm white clot. A small vein, occluded by the clot, had ruptured and poured out about a drachm of blood. There was extensive suppurative lepto-meningitis, with considerable effusion in the ventricles. The upper lobe of the right lung was in a state of advanced red hepatization.

Dr. J. H. MUSSER said the extreme interest of this case arises from the association of apex pneumonia with meningitis, without any lesion in the body as ulcerative endocarditis or any septic process to account for their concurrence. As is well known, in apex pneumonia cerebral symptoms are very prominent, and, being attributed to functional disturbance of the brain, at the present day there is no attention paid to the active treatment of them. This case teaches the valuable lesson that we must learn to treat these symptoms more actively in many cases or we may expect frequently disastrous results.

Dr. TYSON said that, notwithstanding the absence in the history of any traumatism, he could not but think there might have been a blow on the head which was responsible for the pneumonia.

The PRESIDENT remarked that the absence of any history of traumatism in the case by which the meningitis might have been caused brought into prominence the lesions of chronic alcoholism, a condition in itself strongly predisposing to meningitis. The cerebral symptoms appear to have been not only more intense, but also different in kind from those met with in pneumonia, and particularly apex pneumonia. Though perhaps not more intense than is sometimes seen in the apex pneumonia of children, they were certainly different in character. The association of the two diseases pneumonia and meningitis he thought accidental rather than causal.

Dr. C. M. WILSON presented a

MENINGOCELE

taken from a patient dying sixteen days after

birth. The brothers and sisters were healthy, but the youngest had in the temporal region a nævus. The child died in convulsions. The tumor, which grew from the posterior fontanel, was as large as an English walnut, was filled with cheesy matter, and its cavity could be reached from the interior of the cranium.

The Committee on Morbid Growths reported: (1) Dr. Dunn's specimen, removed from the lumbar region of a cow, shows a combination of myxoma with lipoma; (2) Dr. Roberts's tumor, removed from the theca of the extensor tendon of the middle finger, shows the structure of a pure fibroma.

CARD SPECIMENS.

Dr. W. W. Edwards: Head and Neck of a Tænia Solium.

Dr. Morton: Bony Tumor projecting from Right Side of Falx Cerebri.

Dr. J. M. Keating: Congenital Cystic Liver.

Dr. R. G. Curtin: Tricuspid Insufficiency.

Dr. J. S. Neff: Chronic Endo- and Pericarditis. Heart weighing fifty-six ounces.

Dr. Tyson: Acute Pericarditis.

Dr. Formad: Acute Pericarditis; Heart with Three Ventricles; Rhabdo-myoma of Kidney: Two Cases of Spina Bifida; Congenital Diaphragmatic Hernia; Congenital Occlusion of Rectum.

W. E. HUGHES, M.D.,
Recorder.

REVIEWS AND BOOK NOTICES.

ACNE: ITS ETIOLOGY, PATHOLOGY, AND TREATMENT. A Practical Treatise based on the Study of One Thousand Five Hundred Cases of Sebaceous Disease. By L. DUNCAN BULKLEY, A.M., M.D., etc. New York and London, G. P. Putnam's Sons. 1885. Octavo, pp. 280.

Dr. Bulkley's latest volume is one of the best, if not the very best, of the works that have proceeded from his fertile pen. It is a monograph of high value, and gives additional lustre to the fame of American dermatology. The fault which we found with his monograph on eczema—that of a redundancy of style and matter so great as markedly to impair the interest of the book—has, fortunately, in great measure been avoided in the book before us. The style, without being at all concise, is not wordy, and there is little in the work that can safely be skipped.

The book opens with a discussion of the anatomy and physiology of the sebaceous glands. This portion is illustrated by a number of original cuts. Then follows a chapter on classification, nomenclature, definitions, etc. At this point is interpolated a chapter on the frequency of sebaceous diseases, with the statistics of fifteen hundred cases. This part, we think, might have been condensed with advantage. After another chapter on the etiology of sebaceous diseases, Dr. Bulkley goes on to discuss the various affections which he includes under the designation of acne. These embrace diseases like seborrhœa, comedo, milium, and acne molluscum, which have not hitherto in this country been classified as acne. Dr. Bulkley is, we are inclined to think, right in classifying these non-inflammatory affections of the sebaceous glands with the inflammatory ones, as they certainly come under the same general category.

That portion of Dr. Bulkley's book which discusses the etiology, treatment, etc., of the different affections is, of course, practical and interesting. Departing from the plan followed in his monograph on eczema, Dr. Bulkley gives occasionally the story of some individual cases, which add liveliness to his pages and illustrate like pictures the general principles of management laid down in the text.

Regarding treatment, we regret that Dr. Bulkley has found it convenient to place all his formulæ at the end of his book, as it is awkward for any one reading it to refer back and forth so frequently as is necessary in many cases. Our experience with this plan of putting all the formulæ together has been that it is annoying to the student, while extremely attractive to the hungry fisher of prescriptions, who flies to the formulary convinced that, if he can only copy a sufficient number of "recipes" into his note-book, he shall be possessed of all the author's wisdom.

The directions as to the general management of the various affections, and especially the principles of treatment laid down, are in the highest degree important and interesting, and, did space permit, it would be interesting to comment upon this portion of Dr. Bulkley's book.

We cannot close this notice, however, without alluding to one point in the etiology of acne as discussed by Dr. Bulkley. This is the relation between sexual derangements in the male and diseases of the sebaceous glands. Dr. Bulkley says that, "although the actual marriage state does not appear to have very much effect upon the occurrence of acne, it is undoubtedly true that unnatural sexual life may, and often does, have much influence upon its production." A great deal of pernicious nonsense has been written upon this subject, and much humiliation and mortification have been caused by blunt assertions of sexual immorality made by physicians to young men suffering from acne. While boys and young men of delicate health and sedentary and seclusive habits are more apt to indulge in vicious ideas and practices than robust youth given to out-door and gregarious pursuits, the acne which we meet with in the former is due to ill health directly, and not to

unnatural sexual indulgence. Such, at least, is the invariable experience of the reviewer from a long familiarity with and study of cases of acne occurring in youth.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES: Embracing the Entire Range of Scientific and Practical Medicine and Allied Sciences. By various Writers. Illustrated by Chromo-Lithographs and fine Wood-Engravings. Edited by ALBERT H. BUCK, M.D., New York City. Volume I. New York, William Wood & Co., 1885. Quarto, half-morocco, pp. 808.

The scope of this magnificent work is encyclopædic,—embodying, as it does, contributions from various authorities, treating in a compendious manner the principal subjects upon which medical men are likely to desire information. Consisting, when complete, of eight volumes of about eight hundred pages each, it will constitute in itself a valuable reference library. The editor has wisely pursued the course of selecting the topics to be discussed, giving the most space to matters of a practical nature, such as diagnosis and treatment, but at the same time not neglecting to make ample provision for such departments as medical botany, climatology, embryology, physiological and pathological chemistry, applied anatomy, medical jurisprudence, military and naval surgery. The first volume is handsomely printed, in double column, with clear type, and is freely illustrated with excellent cuts and some full-page chromo-lithographs. The subjects extend from Aachen to Cataract; the principal articles are signed by their writers, and are almost without exception of marked value as epitomes of the present state of knowledge on the various topics treated. We had intended to notice some articles which especially attracted attention, but, as mention might be invidious where the work is so uniformly good, we will simply confine our congratulations to the editor, and predict for this work a very favorable reception by the profession.

LEONARD'S PHYSICIAN'S POCKET DAY-BOOK. Bound in Red Morocco, with Flap, Pocket, and Pencil-Loop. Price, postpaid, one dollar. Published annually by the *Illustrated Medical Journal* Company, Detroit, Michigan.

This popular day-book is now in its ninth year of publication. It is good for thirteen months from the first of any month on which it may be begun, and accommodates daily charges for fifty patients, besides having cash department and complete obstetric records. There are also columns for the diagnosis of the case or for brief record of the treatment adopted following each name-space. Name of patient needs to be written but three times in a month.

PHYSICIAN'S VISITING-LIST, 1886. Thirty-Fifth Year of its Publication. Containing Calendar, List of Poisons and Antidotes, Dose-Tables rewritten in Accordance with the Sixth Revision of the United States Pharmacopœia, Marshall Hall's Ready Method in Asphyxia, Lists of New Remedies, Silvester's Method for Producing Artificial Respiration (with Illustrations), Diagram for Diagnosing Diseases of the Heart, Lungs, etc. Lindsay & Blakiston, Philadelphia.

This pocket day-book is bound in morocco, and fastens with a flap. Besides the visiting-list, it contains some tables for ready reference, giving important hints for emergencies. It is a favorite day-book with busy physicians.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, the oldest American medical journal, appears with a new arrangement in its January issue, which contains a number of contributions from English as well as from American sources. Its editor has taken this step and secured a corps of contributors in Great Britain with the avowed object of making it "the international representative of the medical thought and work of the English-speaking races." As it has always been devoted to the best interests of the medical profession, all are interested in its permanence and success, and its new departure will be welcomed, as it widens its field of usefulness.

LIPPINCOTT'S MONTHLY MAGAZINE will appear hereafter on the first day of each month. Under its new editor a number of changes have been made which decidedly increase its attractiveness: it has a new cover of very neat design; the old double-column page has been replaced by a leaded full-width page; and illustrations have been omitted. It is handsomely printed, and very inviting in appearance and in contents. The subscription-price has been reduced to two dollars, and the *Times* and *Magazine* will both be sent for one year for three dollars and twenty-five cents.

MIMIK UND PHYSIOGNOMIK.—An enlarged and complete edition of this work, by Dr. Theo. Piderit, has just been issued by the Meyer Publishing-House in Detmold. This work, when it first appeared, attracted marked attention on account of originality in the treatment of the subject; and in the second and greatly-improved form it will be welcomed by those especially interested in its scientific consideration.

THE MEDICAL TIMES AND GAZETTE discontinued publication at the close of the year. It was one of the old London weeklies, and its discontinuance is a decided loss to medical journalism.

THE AMERICAN PRACTITIONER AND NEWS.—The *Louisville Medical News* of December 26 contains a notice of consolidation, on the first of the year, of the *News* with the *American Practitioner*, to be issued as a bi-weekly, with the above title, under the editorial management of Drs. D. W. Yandell and H. A. Cottell.

THE MEDICAL PRESS OF WESTERN NEW YORK, published at Buffalo, is a welcome addition to journalism. It is well printed and well conducted, and will doubtless receive hearty support from the profession.

NEW BOOKS.

HAND-BOOK OF THE DISEASES OF THE NERVOUS SYSTEM. By JAMES ROSS, M.D., LL.D. With One Hundred and Eighty-four Illustrations. Lea Brothers & Co., Philadelphia, 1885. 8vo, sheep. Pp. 723.

TEXT-BOOK OF OPHTHALMOSCOPY. By EDWARD G. LORING, M.D. Part I. Illustrated. D. Appleton & Co., New York, 1886. 8vo. Pp. 274.

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. LEWIS SMITH, M.D. Sixth Edition, thoroughly Revised, with Forty Illustrations. Lea Brothers & Co., Philadelphia, 1886. 8vo, sheep. Pp. 867.

TRANSACTIONS OF THE ACADEMY OF MEDICINE IN IRELAND. Vol. III. Dublin, 1885.

TRANSACTIONS OF THE AMERICAN SURGICAL ASSOCIATION. Vol. III. 1885.

A MANUAL OF MICROSCOPICAL TECHNOLOGY. By DR. CARL FRIEDLAENDER. Translated, with permission, by STEPHEN YATES HOWELL, M.D. G. P. Putnam's Sons, New York and London. 12mo. Pp. 249.

MISCELLANY.

MIZU AME, OR JAPANESE MALTINE.—Dr. J. C. Berry, of Okayama, gives the following interesting account of the process of manufacture of *Mizu Ame* in Central Japan:

1st, Malt (*moyashi*). Made by putting barley into a pail with a perforated bottom, and then moistening with water for two weeks, by which time (varying with the weather) the barley germinates. Spread and dry, rub off the sprouts, winnow and grind, when it is ready for use.

2d, Of *mochi-gome* (the very glutinous rice from which the *mochi* is made) one *to*,* cook the rice by steaming in a wooden box until moderately soft. Remove to a pail, and add: malt, four hundred and fifty *momme*,† water five *sho*.* Then with the hands thoroughly mix the whole, squeezing and crushing the rice until it assumes a hard, jelly-like consistence; then allow it to remain for twelve hours, during which time stir three times. (If the weather is very cold, it is covered with straw mats; if very warm, it is kept in a cool place.) Remove, and place in hempen bags, put into a strong box, and press out the liquid with firm pressure. Lastly, evaporate to proper consistence over a slow fire.

Mizu ame was never used in Southwestern Japan other than as an article of diet for babies, weakly children, and old people, until recently, and at present its use is largely confined to those who have been brought in contact with or instructed by foreign physicians. I have used it considerably during the last five years, more especially in cases where food-medicines are required; and, after being properly diluted, frequently prescribe it with dialyzed iron and with cod-liver oil. I use it more or less on my table as an article of diet, instead of syrup or honey, especially with one of my children who has a weak stomach. I imagine that its one single advantage over malt or maltine is its more easy digestibility. —*Supplement to Transactions of Sei-I-Kwai.*‡

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—At the January meeting, held on the 6th instant, Colonel George E. Waring, Jr., of Newport, R.I., delivered an address on "The Disposal of Sewage and the Protection of Streams used as Sources of Water-Supply."

After the address a business meeting was held, at which reports of committees were received and an election for officers and committees held. The following were elected for the ensuing year:

President, Dr. S. Weir Mitchell; Vice-President, Dr. John H. Packard; Secretary, Dr. Isaac Norris; Treasurer, Dr. Charles Stewart Wurts; Honorary Librarian, Dr. James H. Hutchinson; Recorder, Dr. J. Ewing Mears; Censors, Drs. Lewis Rodman, William Goodell, Alfred Stillé, Samuel Lewis; Councillors (to serve until January, 1889), Drs. Richard A. Cleemann, William Thomson; Committee on Publication, Drs. James H. Hutchinson, Robert P. Harris, Arthur V. Meigs, J. Ewing Mears; Committee on Library, Drs. I. Minis Hays, Samuel W. Gross, Morris Longstreth, George C. Harlan, William Osler; Committee on Mütter Museum, Drs. William Hunt, John H. Brinton, Morris Longstreth; Committee on Hall, Drs. Horace Y. Evans, Thomas Hewson Bache, J. Ewing Mears, Morris J. Lewis, William Barton Hopkins; Committee on Lectures, Drs. Joseph Leidy, William Goodell, William F. Norris, John H. Packard, Samuel W. Gross; Committee on Directory for Nurses, Drs. William W. Keen, Wharton Sinkler, James C. Wilson.

PHILADELPHIA COUNTY MEDICAL SOCIETY.—At the annual meeting for the election of officers, held January 6, the following were elected for the ensuing year:

President, Dr. R. J. Levis; Vice-Presidents, Drs. William R. Cruice, Charles Wittig; Re-

* 1 *to* = 10 *sho* = 1097 cu. in.
† 120 *momme* = 1 lb. avoirdupois.

‡ Mizu ame has been imported and is on sale by Mr. G. I. McKelway, of this city.

cording Secretary, Dr. S. Solis-Cohen; Assistant Secretary, Dr. Benjamin F. Nicholls; Corresponding Secretary, Dr. M. S. French; Reporting Secretary, Dr. William H. Morrison; Treasurer, Dr. L. K. Baldwin; Censor, Dr. F. P. Henry; Librarian, Dr. C. M. Seltzer.

The following was, on motion of Dr. D. Hayes Agnew, adopted by the Society:

"*Resolved*, That at its annual election of delegates to the American Medical Association and to the State Medical Society the Philadelphia County Medical Society desires to express its regret at the action of the American Medical Association at New Orleans, in view of the injurious results which followed to professional harmony and to the prospects of the International Congress.

"*Resolved*, That the delegates from this Society be instructed to endeavor to secure such modification of that action as may best conduce to the re-establishment of professional harmony and to the success of the Congress."

PHILADELPHIA HOSPITAL.—At the December meeting of the Guardians Dr. Philip Leidy, formerly Port Physician, was elected Chief of the Insane Department of the Philadelphia Hospital in place of Dr. D. D. Richardson, and Dr. Andrew Nebinger was elected Consultant in place of Dr. H. C. Wood. Drs. S. Weir Mitchell and C. K. Mills were also elected Consulting Physicians to the Insane Department. The attending staff of the Department for the Sick was re-elected and enlarged,—Drs. William Osler and John H. Musser being added to the Medical, Drs. Alexander W. Ransley and L. W. Steinbach to the Surgical, and Drs. Elliott Richardson and E. E. Montgomery to the Obstetrical.

COLDEN'S LIQUID BEEF TONIC.—This excellent preparation has become deservedly popular with the medical profession in the treatment of diseases where an agreeable article of diet and tonics are required. It is recommended in typhoid and malarial fevers, consumption, loss of appetite and debility induced by any cause, and it is tolerated when other forms of animal food are rejected.—*Maryland Medical Journal*, Baltimore, Md.

NEW YORK ACADEMY OF MEDICINE.—A Laryngological Section was formed December 23, when an interesting paper was read by Dr. R. P. Lincoln, entitled "The Surgical Uses of Electricity in the Upper Air-Passages," which led to a general discussion. Dr. Lincoln was elected chairman of the Section, and Dr. D. Bryson Delavan Secretary.

THE annual address before the Academy of Surgery of Philadelphia was delivered by Dr. R. J. Levis on last Monday evening, January 4, at the hall of the College of Physicians, the subject being "Impediments to the Progress of American Surgery."

NOTES AND QUERIES.

OBITUARY.

JOSHUA B. LIPPINCOTT, the founder of the publishing-house and the president of the J. B. Lippincott Company, died on the 5th instant at his home in this city, aged seventy-four years. For a long time he had been a sufferer with nephritis, and two years ago he had an attack of pneumonia, followed by a disorder of the heart, which seriously undermined his health. During last year it became evident that health could not be regained, and death appeared imminent. In view of this change, he made arrangements to have the great business which he had built up continued after his death by converting it, last February, into a stock company.

Mr. Lippincott was known to the profession as the publisher of many of the standard medical works, and of *Lippincott's Magazine* and the *Philadelphia Medical Times*. He was one of the Trustees of the University of Pennsylvania, and took a warm interest in all matters connected with medical education.

PARTURITION IN THE NEGRO.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

Having been connected with the medical profession for several years, there have arisen during that time many questions with seemingly no answers to them,—at least none satisfactory to me,—and among them is the ease with which the negro woman (the genuine black woman) gives birth to her children. And why is she so much more exempt from the diseases incidental to the lying-in period than the white woman? for a few days, in a general way, is all that she observes. During the whole of my professional life I have but once seen the necessity for using the obstetrical forceps. I have seen not one unnatural presentation, and but two cases of eclampsia, one before and the other after birth. Neither have I seen a case of puerperal fever, milk-leg, prolapse nor retroversion of the uterus. I have never known one to die in labor, or from any of its sequels, in this community. But as soon as we leave the genuine black race and approach the Anglo-Saxon, troubles and tribulation among the female sex stand thick on every hand. These black women are more exposed to the climate, and are less well fed and clothed, living in huts or small houses,—many without windows or plastering,—with nothing but the naked weather-boarding between them and the heavens, and yet they seem to have no more trouble than the animal creation. They sicken and die with the diseases of the climate, like the white race, but in this Providence has in his wisdom seen proper to protect them. But outside of this there must be some law that governs them which the Anglo-Saxon race would do well to study and to bring into practice. It occurs to me, if it works well with negroes, why not with the white race in the same cases? I think my experience will compare favorably with that of other physicians.

Yours, J. A. H.

MILTON, DELAWARE, December 5, 1885.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U.S. ARMY FROM DECEMBER 20, 1885, TO JANUARY 2, 1886.

FRYER, B. E., MAJOR AND SURGEON.—Sick-leave extended six months on surgeon's certificate of disability. S. O. 292, A. G. O., December 21, 1885.

VICKERY, R. S., MAJOR AND SURGEON.—Relieved from duty in Department of Columbia, to repair to Washington, D.C., and report in person to Surgeon-General for duty in connection with Army and Navy Hospital, Hot Springs, Arkansas. S. O. 293, A. G. O., December 22, 1885.

REED, W., CAPTAIN AND ASSISTANT-SURGEON.—Leave extended one month. S. O. 293, A. G. O., December 22, 1885.

MADDOX, THOMAS J. C., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Killed December 10, 1885, in affair with Apache Indians near the White House, New Mexico.

IVES, F. J., ASSISTANT-SURGEON.—Ordered to report to commanding officer, District of New Mexico, for duty in the field. S. O. 127, Department of the Platte, December 23, 1885.